

Exhibit E

1 ☐ EXPEDITE
 2 ☐ No Hearing Set
 3 ☒ Hearing is Set:
 Date: November 20, 2008
 Time: 9:00 AM
 The Honorable Chris Wickham

7
 8 **STATE OF WASHINGTON**
THURSTON COUNTY SUPERIOR COURT

9 DAROLD R.J. STENSON,

10 Plaintiff,

11 v.

12 ELDON VAIL, et al.,

13 Defendants.

NO. 08-2-02080-8

DEFENDANTS' RESPONSE TO
 MOTION FOR PRELIMINARY
 INJUNCTION

14 The Defendants, by and through their attorneys, ROBERT M. MCKENNA, Attorney
 15 General, and SARA J. OLSON and JOHN J. SAMSON, Assistant Attorneys General, responds
 16 to Stenson's motion for a preliminary injunction.

17 **I. STATEMENT OF THE CASE**

18 In 1994, Plaintiff Stenson was sentenced to death for the aggravated first degree murders
 19 of his wife and business partner. The Washington Supreme Court affirmed the convictions and
 20 sentence on direct review in 1997, and the United States Supreme Court denied certiorari in
 21 1998. State v. Stenson, 132 Wn.2d 668, 940 P.2d 1239 (1997), cert. denied, 523 U.S. 1008,
 22 118 S. Ct. 1193, 140 L. Ed. 2d 323 (1998). The Supreme Court denied Stenson's first personal
 23 restraint petition on the merits in 2001, and denied as procedurally barred two subsequent
 24 personal restraint petition in 2003 and 2004. In re Stenson, 142 Wn.2d 710, 16 P.3d 1 (2001);
 25 In re Stenson, 150 Wn.2d 207, 76 P.3d 241 (2003); In re Stenson, 153 Wn.2d 137, 102 P.3d
 26 151 (2004).

1 Stenson filed a habeas corpus petition in 2001 challenging his convictions and sentence
 2 in federal court. Stenson v. Lambert, US District Court Cause No. C01-252P. The district
 3 court denied the petition in 2005, the Ninth Circuit affirmed dismissal of the petition on in
 4 September 2007. Stenson v. Lambert, 504 F.3d 873 (9th Cir. 2007). The Supreme Court
 5 denied certiorari on October 6, 2008. Stenson v. Sinclair, ___ S. Ct. ___ (2008). The Ninth
 6 Circuit issued the mandate on October 17, 2008. The mandate terminated the stay of execution
 7 issued by the federal court. Pursuant to RCW 10.95.160(2), when the stay terminated, the date
 8 of execution automatically reset for 30 judicial days. In re Lord, 123 Wn.2d 737, 740-41, 870
 9 P.2d 964 (1994). The date of execution is currently scheduled for December 3, 2008.

10 Stenson filed this action alleging that lethal injection and hanging are unconstitutional.
 11 With the execution less than 20 days away, Stenson now moves for a preliminary injunction,
 12 seeking to prevent the carrying out the lawful sentence imposed by the Clallam County
 13 Superior Court. However, Stenson has been under the sentence of death since 1994, and he has
 14 known since March 1996 that the sentence will be carried out by lethal injection, unless he selects
 15 the alternative method of hanging. RCW 10.95.180 (amended by 1996 Wash. Laws c. 251, §1).
 16 Despite having repeatedly challenged his convictions and sentence in both state and federal court
 17 since 1996, Stenson has now waited until the eve of his execution to file this action challenging
 18 the methods used to execute his sentence. Stenson's delay in bringing this action not only
 19 renders his request untimely, and therefore unreviewable under the applicable statutes of
 20 limitations, but it also renders his request inequitable since the balancing of interests weighs
 21 against the grant of a stay in this eleventh hour challenge to a lawful execution. Stenson
 22 cannot show a clear legal or equitable right, the invasion of such a right, or actual and
 23 substantial injury, and Stenson cannot show the balance of the interests weighs in favor of stay.
 24 For these reasons, the Court should deny Stenson's motion for a preliminary injunction.

1 “the strong arm of equity,” or a “transcendent or extraordinary remedy,” and is a remedy which
 2 should not be lightly indulged in, but should be used sparingly and only in a clear and plain
 3 case.” Kucera v. Dep’t of Transportation, 140 Wn.2d at 209 (quoting 42 Am.Jur.2d
 4 Injunctions, § 2, at 728 (1969) (footnotes omitted)).

5 Stenson cannot show an entitlement to injunctive relief under these standards.
 6 Stenson’s delay in bringing this action shows equity and the balancing of interests weigh
 7 against injunctive relief. Stenson also fails to show a clear legal or equitable right, the invasion
 8 of such right, or actual and substantial injury. Even if the action was not time barred, Stenson
 9 cannot show a likelihood of success on the merits.

10
 11 **2. Equity And The Balancing Of Interests Weigh Against The Grant Of
 Injunctive Relief In This Case.**

12 The Washington Supreme Court has recognized that “death penalty litigation is fraught
 13 with the potential for false claims and deliberate delay.” State v. Harris, 114 Wn.2d 419, 435,
 14 789 P.2d 60 (1990). Death row inmates have an obvious incentive to make last minute claims
 15 and file eleventh hour petitions with the hope of delaying the execution of a lawful sentence.
 16 Id. Consequently, the Washington Supreme Court has stated that in death penalty cases, courts
 17 should deny a stay of execution unless the petitioner can make a substantial showing of success
 18 on the merits of the underlying claim. Id. For example, in Harris, the defendant sought a stay
 19 of execution, arguing that he lacked the sufficient mental capacity to be executed. The
 20 Washington Supreme Court said it would not grant a stay of execution unless the defendant
 21 made a “substantial threshold showing” of insanity. Harris, 114 Wn.2d. at 435. The Court
 22 noted this stringent standard for a stay of execution was necessary to avoid against undue
 23 delay:

24 Without a substantial threshold requirement, the eleventh hour petitions
 25 asserting insanity would be encouraged because the death row petitioner would
 26 know that the mere filing of a conclusory petition would result in a stay of
 execution. Placing no initial burden on the petitioner is an invitation to specious
 insanity claims.

1 Harris, 114 Wn.2d at 435.

2 The United States Supreme Court has also expressly recognized the "State retains a
3 significant interest in meting out a sentence of death in a timely fashion." Nelson v. Campbell,
4 541 U.S. 637, 644, 124 S. Ct. 2117, 158 L. Ed. 2d 924 (2004). The State has a compelling
5 interest in the timely execution of a criminal judgment, and the State's interest is severely
6 prejudiced by a stay of execution. In re Blodgett, 502 U.S. 236, 112 S. Ct. 674, 116 L. Ed. 2d
7 669 (1992). "Both the State and the victims of crime have an important interest in the timely
8 enforcement of a sentence." Hill v. McDonough, 547 U.S. 573, 584, 126 S. Ct. 2096, 165 L.
9 Ed. 2d 44 (2006) (citing Calderon v. Thompson, 523 U.S. 538, 555, 118 S. Ct. 1489, 140 L.
10 Ed.2d 728 (1998) (State has a compelling interest in the enforcement of a criminal judgment).
11 The Supreme Court has therefore declared that, in considering whether a stay of execution
12 should be granted when a person challenges a method of execution, "[e]quity must take into
13 consideration the State's strong interest in proceeding with its judgment and . . . attempt[s] at
14 manipulation." Nelson, 541 U.S. at 649 (quoting Gomez v. U.S. Dist. Court for N. Dist. of
15 California, 503 U.S. 653, 654, 112 S. Ct. 1652, 118 L. Ed. 2d 293 (1992) (vacating stay
16 because challenge to lethal gas could have been brought ten years earlier).

17 A stay of execution is not available as a matter of right. Hill, 547 U.S. at 584. The
18 filing of an action challenging a method of execution "does not entitle the complainant to an
19 order staying an execution as a matter of course." Id. at 583-84. Instead, the Court must
20 "consider the last-minute nature of an application to stay execution in deciding whether to
21 grant equitable relief." Gomez, 503 U.S. at 654. Before granting a stay of execution, the
22 courts "must consider not only the likelihood of success on the merits and the relative harm to
23 the parties, but also the extent to which the inmate has delayed unnecessarily in bringing the
24 claim." Nelson, 541 U.S. at 649-50. "Given the State's significant interest in enforcing its
25 criminal judgment, . . . **there is a strong equitable presumption against the grant of a stay**
26 **where a claim could have been brought at such a time as to allow consideration of the**

1 merits without requiring entry of a stay.” *Id.* at 650 (emphasis added); *see also Hill*, 547
 2 U.S. at 584 (reaffirming strong presumption against a stay in cases where plaintiff delayed
 3 challenge to lethal injection); *see also Hill v. McDonough*, 464 F.3d 1256 (11th Cir. 2006)
 4 (affirming denial of stay of execution finding equities do not support stay in light of delay in
 5 bringing challenge to lethal injection); *Hill v. McDonough*, 548 U.S. 940, 127 S. Ct. 343, 165
 6 L. Ed. 2d 1013 (2006) (denying application for stay of execution).

7 Equity bars the entry of a preliminary injunction to stay the execution. Stenson was
 8 sentenced to death in 1994, his sentence became final upon direct review in 1998. Stenson has
 9 known since 1996 that the method of execution would be lethal injection unless he elected
 10 hanging. The Washington Supreme Court has considered challenges to lethal injection since as
 11 early as 1998, and considered challenges to hanging even earlier. Despite having litigated
 12 numerous actions, Stenson delayed bringing this action challenging his method of execution
 13 until the eve of his execution.

14 The courts have overwhelmingly held that equity disfavors a stay in cases such as this
 15 where the plaintiff delayed bringing the action challenging the method of execution. The
 16 Supreme Court held that while an inmate may challenge lethal injection in a civil rights action,
 17 that the filing of an action does not entitle the inmate to a stay of execution as a matter of right.
 18 *Hill*, 547 U.S. at 584. In that case, the Supreme Court directed the lower courts on remand to
 19 consider whether Hill was entitled to the equitable remedy of a stay. *Id.* The Court stressed
 20 there is “a strong equitable presumption against the grant of a stay where a claim could have
 21 been brought at such a time as to allow consideration of the merits without requiring entry of a
 22 stay.” *Id.* On remand, the Eleventh Circuit determined “the equities do not support Hill’s
 23 request” for a stay of execution. *Hill v. McDonough*, 464 F.3d at 1259. Among other things,
 24 Hill did not file his claim until the eve of his execution in 2006, even though the state court had
 25 rejected a similar challenge to lethal injection as early as 2000. *Id.* Since Washington has had
 26

1 challenges to lethal injection even earlier, see, e.g., In re Pirtle, 136 Wn.2d 467, 496, 965 P.2d
2 593 (1998) (challenge to lethal injection), Stenson could have brought this action earlier.

3 The courts have overwhelmingly applied the strong presumption against stays of
4 execution, and have denied stays where the defendant delayed challenging lethal injection.
5 Crowe v. Donald, 528 F.3d 1290, 1292-94 (11th Cir. 2008); Lambert v. Buss, 498 F.3d 446,
6 453-54 (7th Cir. 2007); Woods v. Buss, 496 F.3d 620, 623 (7th Cir. 2007); Nooner v. Norris,
7 491 F.3d 804, 807-10 (8th Cir. 2007); Grayson v. Allen, 491 F.3d 1318, 1322-26 (11th Cir.
8 2007); Workman v. Bredeesen, 486 F.3d 896, 911-13 (6th Cir. 2007); Jones v. Allen, 485 F.3d
9 635, 638-41 (11th Cir. 2007); Cooey v. Strickland, 484 F.3d 424, 425 (6th Cir. 2007);
10 Hamilton v. Jones, 472 F.3d 814, 816 (10th Cir. 2007); Diaz v. McDonough, 472 F.3d 849,
11 850-51 (11th Cir. 2006); Rutherford v. McDonough, 466 F.3d 970 (11th Cir. 2006); Brown v.
12 Livingston, 457 F.3d 390, 391 (5th Cir. 2006); Smith v. Johnson, 440 F.3d 262, 263 (5th Cir.
13 2006); Neville v. Johnson, 440 F.3d 221, 222 (5th Cir. Cir. 2006). “[A] death-sentenced
14 inmate may not wait until execution is imminent before filing an action to enjoin a State’s
15 method of carrying it out.” Berry v. Epps, 506 F.3d 402, 404 (5th Cir. 2007). “At some point
16 in time, the State has a right to impose a sentence – not just because the ‘State’s interests in
17 finality are compelling,’ but also because there is a ‘powerful and legitimate interest in
18 punishing the guilty,’ which attaches to ‘the State and the victims of crime alike.’” Workman
19 v. Bredeesen, 486 F.3d at 913 (quoting Calderon, 523 U.S. at 556).

20 Stenson may argue he could not bring this action until his execution was either set or
21 imminent following the expiration of federal habeas corpus proceedings. The courts have
22 overwhelmingly rejected this type argument. See, e.g., Gomez, 503 U.S. at 654 (challenge
23 brought on eve of execution could have been brought ten years earlier); McNair v. Allen, 515
24 F.3d 1168, 1174 (11th Cir. 2008) (cause of action accrues when conviction final after state
25 review, or when method of execution is new or substantially changed, not when execution is
26 imminent); Crowe v. Donald, 528 F.3d at 1292-93 (same); Neville v. Johnson, 440 F.3d at 222

(defendant could have challenged method of execution once conviction became final on direct review); White v. Johnson, 429 F.3d 572, 574 (5th Cir. 2005) (same); Jones v. Allen, 485 F.3d at 639-40 (defendant could have challenged method four years earlier when Alabama adopted lethal injection); Cooey v. Strickland, 479 F.3d 412, 419-20 (6th Cir. 2007) (delaying case until completion of federal habeas corpus proceedings adds significant delay that prejudices the state). Once the sentence of death is final upon conclusion of direct review in the state courts, there is no impediment to filing an action challenging the method of execution. Nooner, 491 F.3d at 808. Stenson unreasonably delayed bringing this action by waiting until days before the Supreme Court was set to rule on his certiorari petition. As the Eleventh Circuit explained, "waiting until a petition for certiorari has been pending for over three months, is simply too late to avoid the inevitable need for a stay of execution." Jones, 485 F.3d at 639 n.2.

Stenson may also argue he could not bring this claim until the Supreme Court ruled in Baze v. Rees. However, the Eleventh Circuit has rejected similar arguments that the challenge could not be brought until the Supreme Court ruled in Hill v. McDonough. Williams v. Allen, 496 F.3d 1210 (11th Cir. 2007); Crowe v. Donald, 528 F.3d at 1293-94. Stenson's cause of action accrued and existed long before the Supreme Court issued its ruling in Baze. See also McNair v. Allen, 515 F.3d 1168, 1177 (11th Cir. 2008) (changes in execution policy did not justify delay in bringing challenge to method); Henyard v. Secretary, DOC, 543 F.3d 644, 649 (11th Cir. 2008) (same).

Stenson delayed bringing this action until the eleventh hour before his execution. Any stay of execution would cause severe prejudice to the compelling interests of both the State and the victims' families in seeing the sentence carried out. In light of the strong presumption against granting a stay of execution in such cases, and balancing the interests of the parties in this case, equity demands the denial of any stay of execution. The Court should deny Stenson's motion for a preliminary injunction.

1 3. **Stenson Fails To Show A Likelihood Of Success On The Merits Since His**
2 **Claims Are Untimely, Barred Under Res Judicata, And Without Merit.**

3 a. **Whether the action is viewed as a collateral challenge or a**
4 **declaratory judgment action, it is time barred.**

5 As discussed in Defendant's motion to dismiss, Stenson's declaratory judgment action
6 constitutes a collateral challenge to the execution of the sentence that is untimely and successive.
7 Washington law broadly defines a "collateral attack" to mean "any form of postconviction relief
8 other than a direct appeal." RCW 10.73.090(2). Under Washington law, a "collateral attack"
9 includes, but is not limited to, a personal restraint petition, a habeas corpus petition, a motion to
10 vacate judgment, a motion to withdraw guilty plea, a motion for a new trial, and a motion to arrest
11 judgment." and is not limited to a challenge to the fact or duration of confinement. RCW
12 10.73.090(2); RAP 16.4(b); see also In re Meyer, 142 Wn.2d 608, 16 P.3d 563 (2001); In re
13 Smith, 130 Wn. App. 897, 125 P.3d 233 (2005); In re Matteson, 142 Wn.2d 298, 12 P.3d 585
14 (2000). Under state law, a collateral attack includes not only challenges to the fact of a sentence,
15 but also the conditions associated with the execution of the sentence. In re Metcalf, 92 Wn. App.
16 165, 172-73 & n. 5, 963 P.2d 911 (1998); In re Arseneau, 98 Wn. App. 368, 371-74, 989 P.2d
17 1197 (1999). In fact, the Washington Supreme Court has acknowledged that challenges to
18 methods of execution constitute a collateral attack. In re Pirtle, 136 Wn.2d 467, 496, 965 P.2d
19 593 (1998) (lethal injection); In re Lord, 123 Wn.2d at 325-26 (hanging). Since Stenson's action
20 constitutes a "collateral attack," it is barred under RCW 10.73.090 and RCW 10.73.140.

21 But even if the action is not a collateral challenge, and is simply an ordinary declaratory
22 judgment action, the action is barred under the statute of limitations. Washington law imposes a
23 three year statute of limitations. RCW 4.16.080(2). Stenson's cause of action accrued at the
24 latest when his convictions and sentence became final upon conclusion of direct review in the
25 state courts. At that date, Stenson knew he was subject to a sentence of death that would be
26 carried by out by lethal injection, unless he elected hanging. At that date, the statute of
 limitations started to run. See, e.g., McNair v. Allen, 515 F.3d 1168, 1174-75 (11th Cir. 2008);

1 Cooley v. Strickland, 479 F.3d 412, 419-22 (6th Cir. 2007); Neville v. Johnson, 440 F.3d 221,
 2 222 (5th Cir. 2006); Crowe v. Donald, 528 F.3d 1290, 1292-93 (11th Cir. 2008); Henyard v.
 3 Secretary, DOC, 2008 WL 4328570, 2. Despite having filed numerous actions in state and
 4 federal court, Stenson delayed filing his current action until September 2008, long after his
 5 cause of action accrued and the statute of limitations expired. Stenson cannot show a
 6 likelihood of success on the merits because his action is time barred.

7 **b. Stenson's claims are barred under the doctrine of *res judicata*.**

8 The doctrine of *res judicata* serves to bar a claim where there is an identity of
 9 claims, a final judgment on the merits, and an identity or privity of parties. Loveridge v.
 10 Fred Meyer, Inc., 125 Wn.2d 759, 763, 887 P.2d 898 (1995). *Res judicata* further bars
 11 "issues that were or could have been raised in the prior action." Mellor v. Chamberlin, 100
 12 Wn.2d 643, 645, 673 P.2d 610 (1983). This doctrine applies to Stenson's claims.

13 **c. Even if the claims are not barred, Stenson fails to show a likelihood**
 14 **of success on the merits.**

15 Even if Stenson's claims are not barred, he cannot show a likelihood of success on the
 16 merits because lethal injection and hanging are constitutional methods of execution. Considering
 17 this fact in light of the equities of the case, and the interests of the parties, Stenson has not
 18 satisfied the high burden for obtaining preliminary injunctive relief on the eve of his execution.

19 **(1) Stenson's claims regarding lethal injection and hanging fail**
 20 **as a matter of law.**

21 As legislatively chosen methods of execution, lethal injection and hanging are presumed
 22 constitutional. State v. Rupe, 101 Wn.2d 664, 698, 683 P.2d 571 (1984); State v. Frampton, 95
 23 Wn.2d 469, 512-14 & 527, 627 P.2d 922 (1981); Gregg v. Georgia, 428 U.S. 153, 174-76, 96 S.
 24 Ct. 2909, 49 L. Ed. 2d 859 (1976); Campbell v. Wood, 18 F.3d 662, 682 (9th Cir. 1994) (*en*
 25 *banc*). Stenson bears the burden of rebutting the presumption of constitutionality by presenting
 26 clear, objective evidence that the method of execution is actually cruel punishment. See *e.g.*

1 Frampton, 95 Wn.2d at 512-14 & 527; Campbell, 18 F.3d at 682; In re Kemmler, 136 U.S. 436,
2 447, 10 S. Ct. 930, 34 L. Ed. 519 (1890). Speculation that DOC's policy for carrying out an
3 execution might cause an unnecessary risk of pain is not sufficient to show a violation of either
4 the state or federal Constitutions. Speculation that undue pain might occur does not render the
5 method of execution unconstitutional. The possibility of an accident "cannot and need not be
6 eliminated from the execution process in order to survive constitutional review." LeGrand v.
7 Stewart, 133 F.3d 1253, 1265, (9th Cir. 1998) (quoting Campbell v. Wood, 18 F.3d at 668); see
8 also Poland v. Stewart, 151 F. 3d 1014, 1023 (9th Cir. 1998) (rejecting claim that the Arizona
9 method of lethal injection could cause severe pain).

10 The Washington Supreme Court has already held that hanging and lethal injection are
11 both constitutional. See In re Pirtle, 136 Wn.2d 467, 496, 965 P.2d 593 (1998) (holding hanging
12 and lethal injection are constitutional methods of execution); In re Lord, 123 Wn.2d at 325-26 &
13 n.11 (holding hanging is constitutional, and declaring lethal injection is "undoubtedly
14 constitutional"); State v. Campbell, 112 Wn.2d 186, 192, 770 P.2d 620 (1989) (hanging is
15 constitutional); see also Campbell v. Wood, 18 F.3d 662, 687 (9th Cir. 1994) (same). The United
16 States Supreme Court has also rejected the very claim now presented by Stenson, holding that
17 lethal injection using the three drug protocol employed by Kentucky is a constitutional method of
18 execution, Baze v. Rees, 128 S. Ct. 1520, 1529, 170 L. Ed. 2d 420 (2008). The Court held that a
19 lethal injection protocol substantially similar to Kentucky's protocol would not violate the Eighth
20 Amendment. Id. at 1537.

21 Washington's lethal injection protocol is substantially similar to Kentucky's protocol.
22 DOC Policy 490.200, as amended 10/25/08, expressly requires minimum qualifications of
23 members of the lethal injection team (at least one or more years of experience in a
24 profession that involves intravenous (IV) injections), sufficient practice sessions (at least
25 three of which will include the siting of intravenous lines), the establishment of two
26 intravenous lines with a normal flow of saline through each line, the administration of 3

1 grams of sodium thiopental, the Superintendent to observe the inmate for signs of
 2 consciousness after the administration of sodium thiopental and before the administration
 3 of pancuronium bromide, and the administration of an additional dose of 3 grams of
 4 sodium thiopental before the pancuronium bromide if the Superintendent observes the
 5 inmate is conscious after the administration of the first dose of sodium thiopental. See
 6 Defendants' Motion for Summary Judgment, Exhibit 2, Declaration of Dell-Autumn
 7 Witten, Attachment A, DOC Policy 490.200, as amended 10/25/08.¹ The individual who
 8 will site the intravenous lines during Mr. Stenson's execution regularly inserts intravenous
 9 lines as a part of his/her professional duties. Id. at Exhibit 1, Declaration of Stephen
 10 Sinclair. It is, therefore, reasonable to assign the task of inserting the IV lines to this
 11 individual. Id. at Exhibit 4, Declaration of Fiona Jane Couper, Ph.D.; Id. at Exhibit 5,
 12 Declaration of Mark Dershwitz, M.D., Ph.D. Additionally, the three practice sessions with
 13 the siting of IV lines, as required by policy, have been completed. Id. at Exhibit 1,
 14 Declaration of Stephen Sinclair; Id. at Exhibit 3, Declaration of Dan J. Pacholke.

15 The amended policy is substantially similar to Kentucky's protocol and is being
 16 properly followed in anticipation of Stenson's December 3, 2008, execution. The proper
 17 application of the protocol, will result in a rapid, painless and humane death and the ISDP
 18 will not experience any unnecessary pain or suffering. Id. at Exhibit 4, Declaration of
 19 Fiona Jane Couper, Ph.D.; Id. at Exhibit 5, Declaration of Mark Dershwitz, M.D., Ph.D.

20 In addition to the Supreme Court and the Washington Supreme Court, the courts that have
 21 considered the constitutionality of lethal injection using a three drug protocol have
 22 overwhelmingly found it to be a constitutional method of execution. See, e.g., Emmett v.
 23 Johnson, 532 F.3d 291 (4th Cir. 2008) (applying Baze and rejecting claims identical to Stenson's);
 24 Workman v. Bredeisen, 486 F.3d 896, 905-10 (6th Cir. 2007) (rejecting in challenge to

25 ¹ Copies of all declarations cited, which were filed with Defendants' Motion for Summary Judgment, are
 26 attached to this response for the Court's reference.

1 Tennessee's protocol, which is similar to Washington's protocol, the same arguments now raised
2 by Stenson); Lambert v. Buss, 498 F.3d 446, 448-54 (7th Cir. 2007) (rejecting same type of
3 claims in challenge to Indiana's protocol); Woods v. Buss, 496 F.3d 620, 622-23 (7th Cir. 2007)
4 (same); Hamilton v. Jones, 472 F.3d 814, 816-17 (10th Cir. 2007) (rejecting similar challenge to
5 Oklahoma's protocol); Cooper v. Rimmer, 379 F.3d 1029 (9th Cir. 2004) (rejecting challenge to
6 California's similar protocol); Poland v. Stewart, 151 F.3d 1014 (9th Cir. 1998) (rejecting
7 challenge to Arizona's protocol); LaGrand v. Stewart, 133 F. 3d 1253 (9th Cir. 1998) (same);
8 Woolls v. McCotter, 798 F.2d 695 (5th Cir. 1986); Hill v. Lockhart, 791 F. Supp. 1388 (E.D. Ark.
9 1992), affirmed on other grounds, 927 F.2d 340 (8th Cir. 1991); United States ex rel. Silagy v.
10 Peters, 713 F. Supp. 1246 (C.D. Ill. 1989), affirmed on other grounds, 905 F.2d 986 (7th Cir.
11 1990); Ex Parte Granviel, 561 S.W.2d 503 (Tex. Crim. App. 1978); People v. Stewart, 121 Ill.2d
12 93, 520 N.E.2d 348 (1988); State v. Moen, 309 Or. 45, 786 P.2d 111 (1990); Hopkinson v. State,
13 798 P.2d 1186, 1187 (Wyo. 1990); People v. Silagy, 116 Ill.2d 357, 507 N.E.2d 830 (1987); State
14 v. Deputy, 644 A.2d 411 (Del. Super. 1994); State v. Webb, 252 Conn. 128, 750 A. 2d 448
15 (2000); Sims v. State, 754 So. 2d 657 (Fla. 2000).

16 Lethal injection and hanging are constitutional methods of punishment, and Stenson's
17 challenge to the particular procedures used in Washington fail as a matter of law.² State officials
18 are presumed to conduct themselves properly. Although Stenson speculates that officials might
19 be unqualified, or might make mistakes in carrying out the execution, his allegations do not show
20 DOC will "wantonly" inflict unnecessary pain so as to cause cruel and unusual punishment.

21
22 (2) **DOC's policy does not violate the rule against the unlawful**
delegation of legislative authority.

23 Stenson's original complaint alleged DOC's lethal injection policy was
24 unconstitutional. Stenson alleged he was not trying to prevent his execution, that he was

25 ² Also, as discussed in Defendants' motion to dismiss, Stenson lacks standing to challenge hanging since
26 he has not elected hanging as the method of execution. In re Benn, 134 Wn.2d 868, 933, 952 P.2d 116 (1998).

1 challenging only the particular procedure set forth in the existing policy, and that his complaint
 2 was not an attack on the sentence imposed by the superior court. Subsequent to the filing of
 3 the first complaint, DOC promulgated an amended policy that eliminated the concerns raised
 4 by Stenson's original complaint.³ Stenson has now filed an amended complaint, adding a new
 5 claim that alleges DOC lacks authority to make any changes to its existing execution policy.
 6 In addition to being without merit, the new claim demonstrates Stenson's true intentions in
 7 filing this action: Stenson wishes to prevent his execution from ever occurring. Stenson's
 8 complaint is, therefore, a collateral attack to his sentence and is barred under RCW 10.73.090
 9 and RCW 10.73.140.

10 Moreover, the claim is without merit. First, the "legislative delegation" rule cited by
 11 Stenson does not apply. The policy is a directive governing the internal operations of a prison.
 12 "Unlike administrative rules and other formally promulgated agency regulations, internal
 13 policies and directives generally do not create law." Joyce v. Dept. of Corrections, 155 Wn.2d
 14 306, 323, 199 P.3d 825 (2005) (citations omitted). The policies are not an enactment of
 15 legislative power, and "they do not have the force of law." Joyce, 155 Wn.2d at 323 (citing
 16 State v. Brown, 142 Wn.2d 57, 62, 11 P.3d 818 [2000]). Additionally, the APA does not apply
 17 to policies governing offenders and prison operations. RCW 34.05.030(1)(c); see also Dawson
 18 v. Hearing Committee, 92 Wn.2d 391, 597 P.2d 1353 (1979); Foss v. DOC, 82 Wn. App. 355,
 19 358-59, 918 P.2d 521 (1996). The execution policy is not a "quasi-legislative" rule, and the
 20 "legislative delegation" rule cited by Stenson does not apply.

21 Second, even if the legislative delegation rule applied to this policy, DOC's amendment
 22 to the policy would not violate this rule. There are two requirements for lawful delegation of
 23 legislative power. State v. Simmons, 152 Wn.2d 450, 455, 98 P.3d 789 (2004). First, the

24
 25 ³ Stenson alleges without any support that DOC amended its policy simply as a reaction to his original
 26 complaint. In fact, DOC began the process of amending the policy once the Supreme Court ruled in Baze v. Rees,
 long before Stenson filed his complaint.

1 Legislature must have described in general terms what is to be done and by which agency. Id.
 2 Second, there must be adequate procedural safeguards to control arbitrary agency action and
 3 abuse of discretion. Id. However, the safeguards need not be set out in the delegating statutes,
 4 and the APA need not be followed; other statutory and common law safeguards are sufficient
 5 to satisfy the need for "adequate procedural safeguards." State v. Crown Zellerbach, 92 Wn.2d
 6 894, 901, 602 P.2d 1172 (1979); Simmons, 152 Wn.2d at 457.

7 Contrary to Stenson's allegations, the Legislature has described in general terms what
 8 is to be done and by which agency. The Legislature directed DOC to carry out executions of
 9 death sentences, when and how executions are to be scheduled, and directed that the
 10 Superintendent execute the sentence and keep records of death warrants and their execution.
 11 RCW 10.95.180; RCW 10.95.160; RCW 10.95.190. The Legislature further provided DOC
 12 with statutory authority to promulgate internal policies to carry out its statutory functions. See
 13 RCW 72.01.090; RCW 72.02.040; RCW 72.09.050; RCW 72.02.045(4) & (6).

14 In addition, adequate procedural safeguards exist to prevent arbitrary agency action.
 15 "Adequate procedural safeguards" merely require the protection against arbitrary and
 16 capricious agency action. State v. Simmons, 152 Wn.2d at 457 (citations omitted). Such
 17 protections exist under existing Washington law. See, e.g., RAP 16.2; RCW 7.16.150; RCW
 18 7.16.290; Foss, 82 Wn. App. at 359.

19 Since Stenson cannot show a likelihood of success on the merits, and equity and the
 20 balance of interests weigh against a grant of injunctive relief, the Court should deny the
 21 extraordinary remedy of a stay of execution.

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III. CONCLUSION

For the foregoing reasons, Defendants respectfully request that the Court deny Stenson's motion for a preliminary injunction.

DATED this 15th day of November, 2008.

ROBERT M. MCKENNA
Attorney General


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CERTIFICATE OF SERVICE

I certify that I served a copy of the foregoing document on all parties or their counsel of record as follows:

- ☐ US Mail Postage Prepaid
☒ United Parcel Service, Next Day Air
☐ ABC/Legal Messenger
☐ State Campus Delivery
☐ Hand delivered by _____

TO:

SHERILYN PETERSON
ELIZABETH D. GAUKROGER
PERKINS COIE, LLP
1201 THIRD AVE, SUITE 4800
SEATTLE, WA 98101-3099

EXECUTED this 13th day of November, 2008, at Olympia, Washington.


KATHY JERENZ
Legal Assistant

EXHIBIT 1

DECLARATION OF STEPHEN D. SINCLAIR

I, STEPHEN D. SINCLAIR, make the following declaration:

1. I am currently employed as the Superintendent of the Washington State Penitentiary (WSP). I have been employed in this position for 2 months. Prior to assuming the position of Superintendent, I was employed as an Associate Superintendent at WSP for 3 years. I have worked for the Department of Corrections (DOC) for 20 years. Prior to my employment by DOC, I was an infantryman in the United States Army and stationed at various posts in and out of the country. During my enlistment I received training and certification as a Combat Life Saver and completed a course for Emergency Medical Technicians presented by Pikes Peak Community College in Colorado Springs, Colorado. In previous executions carried out at the Washington State Penitentiary I have participated in the transportation of the Inmate Sentenced to Death Penalty (ISDP) to the chamber holding cell and other security/escort functions.

2. As the Superintendent for WSP, I am personally and thoroughly familiar with DOC Policy 490.200, Capital Punishment. I am familiar with my responsibilities as well as the responsibilities of the Lethal Injection Team and the Escort Team.

3. Darold Stenson is an ISDP and is scheduled for execution on December 3, 2008. I have reviewed Mr. Stenson's medical records and know that his weight fluctuates between 230 and 233 pounds and that his veins have been examined and are considered "normal" in that there are no signs of collapsed veins. Additionally, Mr. Stenson does not have a history of intravenous (IV) drug use.

4. I am personally aware of the identities of all members of the Lethal Injection Team and the Escort Team and of their qualifications, training, and professional experience.

5. Each member of the Lethal Injection Team has sufficient training or experience to carry out the lethal injection process without any unnecessary pain to Mr. Stenson. All members of the Lethal Injection Team each have one or more year of professional experience as a certified Medical Assistant, Phlebotomist, Emergency Medical Technician, Paramedic, military corpsman, or similar occupation, as required by DOC Policy 490.200, Directive IX(A)(1)(d).

Additionally, the member of the Lethal Injection Team who will insert the IV lines regularly inserts IV lines as a part of his/her professional duties.

6. Pursuant to the requirements of DOC Policy 490.200, Directive VIII(1)(2) practice sessions have been conducted at WSP in anticipation of Mr. Stenson's scheduled execution.

7. The Lethal Injection team members have conducted three full lethal injection practice sessions since October 6, 2008. Each of these sessions involved a full walk-through of the entire lethal injection process and the insertion of IV lines in both arms of the person acting as the ISDP. I have personally acted in the role of the ISDP for two of these sessions and experienced the entire process to include the insertion of the needle and IV lines on both arms.

8. The lethal injection process includes the escorting in of the ISDP, the placing of the ISDP on the table, the securing of the ISDP to the table, and the insertion of the IV lines. There is 174" of tubing from the saline drip bag in the injection room to the arm of the ISDP in the execution chamber. Once the ISDP has been secured to the table and the IV lines have been inserted in both arms, with saline flowing through the IV lines, the members of the Lethal Injection Team enter and remain in the injection room. This room is approximately two feet from the head of the table to which the ISDP is secured. The injection room has a 9" by 7" door which is opened to the execution chamber to provide for direct, unobstructed, visual communication between myself and the Lethal Injection Team members. Once the Lethal Injection Team members have gone into the injection room, the witnesses are escorted into the witness room. Once the witnesses are seated, the curtain is opened. The witnesses sit six feet from the execution chamber window and have direct visual access to the execution chamber, me, and the ISDP. Once the witnesses have been brought in, the ISDP is permitted to give last words. I then orally communicate with the Deputy Secretary that there are no further stays. Once the Deputy Secretary has confirmed there are no further stays, I give a visual signal to the Lethal Injection Team to begin injection of the 3 grams of thiopental sodium. I observe the ISDP for signs of consciousness after the injection of the thiopental sodium. If any are seen, I instruct

the Lethal Injection Team to insert a second 3 gram dose of thiopental sodium. Once no signs of consciousness are observed, I signal to the Lethal Injection Team to inject the 50 cc normal saline, 100 mg pancuronium bromide, 50 cc normal saline, and 240 mEq potassium chloride in succession. Throughout the injection of the drugs I am no more than one foot from the ISDP seated immediately next to his right arm. The execution chamber and the injection room are well lit and provide for clear sight and ample space for the movement of all staff participating in the execution.

9. I have received training on how to insert an IV line so that I am familiar with the process and how it is done effectively, although I will not be the individual inserting the IV lines during Mr. Stenson's execution.

10. I have also received personal, particularized training on recognizing the signs of an IV line that has not been properly sited. In an execution, an IV needle is used to site the IV lines. The IV needle has a connector needle, which is a fine pointed needle, with a fine, plastic sheath around it, with the needle protruding approximately an inch, and an approximately 3-inch length of connector tubing attached to it. The connector needle is inserted into the vein. Once the connector needle enters the vein there is a "flash" of blood which enters the hub of the needle. The "flash" indicates that a vein has been entered. Once the connector needle has entered the vein, the sheath is pushed down into the vein and the connector needle is removed. A syringe is then attached to the connector tubing and a "pull back" of the syringe's plunger is done to see if blood enters the connector tubing, indicating a vein has been entered. Once it is determined that a vein has been entered, the syringe is removed and the connector tubing is attached to the IV tubing and the saline flow begins. If a vein is missed, the "flash" will not occur, the "pull back" will not work, and there will be swelling at the injection site once the saline begins to enter the subcutaneous muscle. I have received training in witnessing the "flash", the "pull back", and looking for swelling at the injection site.

11. In each of the three full practice sessions, there were no difficulties with the insertion of the IV lines. The sessions were conducted without error or incident.

12. Prior to the execution, if Mr. Stenson does not elect hanging, the lethal injection drugs will be obtained by the WSP pharmacy. Once they arrive at the institution, they will be brought from the pharmacy at WSP to my office where they will be secured in a locked box, to which I have the only key. On the day of the execution, the drugs will be taken from the locked box in my office and given to the Lethal Injection Team. The Lethal Injection Team will follow the directions on the thiopental sodium box and will mix the powdered drug with saline to make a liquid to be injected into the ISDP. Both the pancronium bromide and the potassium chloride come in liquid form.

13. The Escort Team members and I have conducted fifteen to twenty hanging practice sessions in the last three weeks. In each of these practice sessions, either a mannequin has been "dropped" through the trap door or a metal container with weights weighing 230 pounds (to simulate Mr. Stenson's body weight) has been "dropped" through the trap door. In each hanging practice session involving the mannequin, of which there have been at least ten, the individual who will be placing the noose around the ISDP's neck has practiced the placing and tightening of the noose. In order to ensure a swift, painless death, the noose is placed extremely tightly around the ISDP's neck with the noose directly behind the ISDP's left ear and the running part of the noose, i.e. the part that moves when the noose is tightened, placed along the front of the neck. Four different ropes have been "stretched" which includes wetting the rope and stretching it to eliminate any risk of recoil once the trapdoor has opened and the ISDP has fallen the five feet. In the practice sessions with the mannequin, after the noose has been securely placed, the trapdoor is opened and the mannequin falls through and the rope is extended to the full five feet. In each hanging practice session involving the metal crate containing weights totaling 230 pounds, of which there have been at least five, the metal crate has been placed on the trapdoor and the rope has been attached to the metal crate. When the trapdoor drops, the metal crate falls through and the rope is extended its full five feet. In each of these fifteen to twenty sessions, the hanging mechanisms functioned without error or incident.

14. If an ISDP elects hanging, the ISDP will be brought into the execution chamber and escorted directly to the window over-looking the witness room. Once at the window, the curtain is opened approximately six inches to allow the ISDP to be visually seen by the witnesses as he makes his last words. Once he has finished his last words, the curtains are closed. Once the curtains are closed, the witnesses cannot see the ISDP directly; however, the room is backlit so that the ISDP's shadow is visible. The witnesses are able to see the ISDP being escorted back to the rope, by seeing his shadow, and can see the rope placed around his neck and tightened. From the witness room, the witnesses can see the trap door fall and can see the lower third of the ISDP's body once the rope has extended the full five feet.

15. As of this date, Mr. Stenson has not elected hanging as his execution method. As such, preparations are still under way for both hanging and lethal injection.

16. I will be present in the execution chamber during Mr. Stenson's execution and will ensure that DOC Policy 490.200 is followed.

I declare under the penalty of perjury that the foregoing is true and correct to the best of my knowledge.

DATED this 7th day of November, 2008, at Walla Walla, Washington.

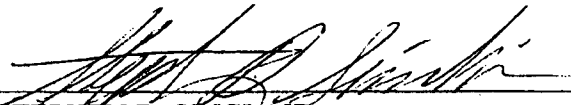

STEPHEN D. SINCLAIR

EXHIBIT 2

I, DELL-AUTUMN WITTEN, make the following declaration:

1. I am currently employed by the Washington State Department of Corrections (DOC) as a Program Specialist 5. As part of my job duties I am responsible for responding to requests for specific policies promulgated by the Department of Corrections.

2. A true and correct copy of the Department of Corrections Policy Directive 490.200, Capital Punishment, effective October 25, 2008, is attached to this Declaration as Attachment A. This is the current version of the policy.

I declare under the penalty of perjury that the foregoing is true and correct to the best of my knowledge.


EXECUTED this 12th day of November, 2008, at Tumwater, Washington.



DELL AUTUMN WITTEN

EXHIBIT 2

ATTACHMENT A

 <p>STATE OF WASHINGTON DEPARTMENT OF CORRECTIONS</p> <p>POLICY</p>	<p>APPLICABILITY PRISON</p>		
	<p>REVISION DATE 10/25/08</p>	<p>PAGE NUMBER 1 of 12</p>	<p>NUMBER DOC 490.200</p>
	<p>TITLE CAPITAL PUNISHMENT</p>		

REVIEW/REVISION HISTORY:

Effective: 9/3/93
 Revised: 6/15/98
 Revised: 8/10/01
 Revised: 6/21/07
 Revised: 10/25/08

SUMMARY OF REVISION/REVIEW:

Title and Team Name changes throughout
 I.A.1., II.C. & VIII.A.1., & VIII.C.2. – Added clarifying language
 III.B.3. – Added requirements for ISDP incoming mail
 III.B.4.b. & 5.b. – Added clarifying language regarding attorney of record
 Revised IV.A.1. to specify a single media event
 Added IV.B.1. & DOC 21-575 Acknowledgment of Visitor Search Requirements for searches of media representatives
 Revised V.F. regarding search requirement for witnesses
 VI.C. – Revised housing requirements for female ISDP
 VIII.A.2. – Added requirement for 3 practice sessions for lethal injections
 VIII.B. – Removed medical file review; revised physical examination requirement
 IX.A.1.d. – Added that Lethal Injection Team members must be trained; added qualifications
 IX.A.2.a. – Changed Director of Health Services to Superintendent
 IX.A.4.b. & d. – Revised requirements for lethal injection
 IX.A.4.h. – Removed requirement that Lethal Injection Team remove apparatus and saline
 X.A. – Calls to Headquarters will be made to the Department Emergency Operations Center
 X.F. – Removed requirement that Death Certificate be signed before removal of body
 Several changes to Attachment 1

APPROVED:

Signature on File


ELDON VAIL, Secretary
 Department of Corrections

10/23/08

 Date Signed

ATTACHMENT

A

 <p>STATE OF WASHINGTON DEPARTMENT OF CORRECTIONS</p> <p>POLICY</p>	APPLICABILITY PRISON		
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REFERENCES:


DOC 100.100 is hereby incorporated into this policy; RCW 10.95.160-190; WAC 137-48-050;
DOC 410.040 Incident Command System (ICS)

POLICY:

- I. The Department has established procedures governing capital punishment to meet the requirements of RCW 10.95.160-190. These procedures set forth:
 - A. Security requirements for an Inmate Subject to the Death Penalty (ISDP),
 - B. Protocol for conducting an execution,
 - C. The care provided the ISDP while a valid Death Warrant is in force, and
 - D. The method of execution by lethal injection or hanging.
- II. The Department Secretary designates the Assistant Secretary for Prisons to coordinate:
 - A. The responsibilities of the Washington State Penitentiary (WSP) Superintendent, and
 - B. A review of the procedures and all operational decisions in carrying out the execution, as well as the legal status of the Death Warrant.

DIRECTIVE:


- I. ISDP Housing
 - A. Upon receipt of an ISDP and prior to receipt of a Death Warrant:
 1. Male ISDPs shall be housed in a single person cell located in a segregated area of WSP.
 2. Female ISDPs shall be housed in a segregated area of the Washington Corrections Center for Women (WCCW). Prior to the execution date, the female ISDP will be transported to WSP for housing and execution.
- II. Pre-Execution Procedure
 - A. Consistent with RCW 10.95.190, a log shall be maintained with the Death Warrant in the Superintendent's Office.
 - B. Responsibilities are listed in the Execution Procedures and Assignments Checklist (Attachment 1).

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- C. Only staff assigned by the Superintendent will attend the execution. No facility staff will be required to participate in any part of the execution procedure.

III. Notification to ISDP


- A. After receiving confirmation of a valid Death Warrant, the Superintendent will designate an Associate Superintendent to personally interview the ISDP regarding procedures relating to the execution.
- B. The Associate Superintendent will provide the ISDP with a written summary of procedures, to include mail, visits, telephone usage, and available religious services. The ISDP will be informed of the following:
1. The date of the execution.
 2. The punishment of death shall be by lethal injection.
 - a. The ISDP may elect hanging as an alternate means of execution.
 - b. The procedure to be used will be determined 14 days prior to the execution and the method cannot be changed after that date. If the ISDP elects hanging, it must be stated in writing no later than 14 days prior to the execution date.
 3. Mail procedures for an ISDP with an active Death Warrant will be as follows:
 - a. The Mail Room Sergeant will be instructed, in writing, to forward all incoming mail, unopened, to the designated Associate Superintendent, who will screen and exclude any items which may threaten the order and security of the facility with regard to the ISDP.
 - 1) Mail intended to harass the ISDP will be considered a threat to the orderly operation of the facility and restricted per WAC 137-48-050.
 - 2) Legal mail will be screened, not read.
 - b. The Mail Room Sergeant will maintain a log of all incoming and outgoing mail, noting the date and time of receipt and delivery. A separate log will be maintained for all legal mail.
 4. All visits between the ISDP and authorized visitors will be no contact.

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- a. Visitation for an ISDP will be consistent with the visiting procedures of other offenders housed in the Intensive Management Unit (IMU).
 - b. Seven days prior to the execution, daily visits will be authorized in addition to visits with the attorney of record.
 - c. Twenty-four hours prior to the execution date, all visits and visitors require the approval/denial of the Superintendent.
 - d. After the ISDP is moved to the execution holding cell, visits will be restricted to approved clergy and the attorney of record.
5. The ISDP will have unlimited phone access during the daily yard period. Fourteen days prior to the execution date, an additional daily one hour yard will be provided.
- a. There will be no limit on the number or duration of calls to and from the attorney of record.
 - b. Only calls from the attorney of record will be authorized following transfer to the execution holding cell.

IV. Media Relations

- A. The Superintendent/designee will coordinate all requests for information concerning an execution.
 1. A single event to provide representatives of major and local media an opportunity to access the chamber will be authorized by the Superintendent and coordinated by designated staff.
- B. The Superintendent will establish procedures for selecting media witnesses as specified in the Witness Selection section of this policy.
 1. No audio/electronic/video equipment, cameras, telephones, or recording/communication devices will be permitted in the chamber. Media witnesses will be subject to an electronic and pat search. Written consent for search will be required using DOC 21-575 Acknowledgment of Visitor Search Requirements.
 2. The only items that are allowed in the chamber are pens, pencils, and writing tablets supplied by the facility.
- C. Requests from media representatives for access to the Information Center must be submitted in writing.

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1. Information Center access will not be permitted more than 3 hours prior to an execution.
- D. Media access to a designated area of the facility parking lot will be permitted at a designated time the day prior to the execution.
- E. Media will not be permitted to film or conduct interviews with facility staff without the prior authorization of the Superintendent/designee.
- F. All normal facility security procedures will apply. Failure to comply with these procedures, Department policies, operational memorandums, or directions from authorized personnel may be cause for removal from the facility and/or facility grounds. The Superintendent may establish emergency rules and procedures.
- V. Witness Selection
- A. Not less than 20 days prior to an execution, individuals who wish to attend and witness the execution must submit a letter of request (e.g., application) to the Superintendent. The letter must designate the relationship to the ISDP and reason(s) for wishing to attend. Eligible individuals include:
1. Judicial officers (i.e., the Judge who signed the Death Warrant for the ISDP, the current Prosecuting Attorney or a Deputy Prosecuting Attorney of the county from which the final Judgment and Sentence and Death Warrant were issued, and the most recent attorney of record representing the ISDP),
 2. Law enforcement representatives (i.e., officers responsible for investigating the crime for which the inmate was sentenced to death),
 3. Media representatives,
 4. Representatives of the families of the victims (i.e., immediate family or victim advocates of the immediate family), and
 5. Representatives from the ISDP's immediate family.
- B. Not less than 15 days prior to the execution, the Superintendent shall determine the total number of individuals, other than Department employees, who will be allowed to attend and witness the execution.
1. The Superintendent shall determine the number of witnesses allowed in each category of eligible individuals.

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- a. No less than 5 media representatives will be included, with consideration given to news organizations serving communities affected by the crimes or the execution.
 - b. Up to 2 law enforcement representatives will be included. The chief law enforcement officer of the jurisdiction where the crime was committed shall designate the law enforcement representatives.
2. Once the list is composed, the Superintendent shall serve the list on all parties who have submitted a letter (e.g., application) to witness the execution.
- C. Not less than 10 days prior to the execution, the Superintendent shall file the witness list with the Superior Court from which the conviction and Death Warrant were issued. The witness list will be filed with a petition asking that the court enter an order certifying the list as a final order identifying the witnesses to attend the execution. The final order of the court certifying the witness list shall not be entered less than 5 days after the filing of the petition.
 - D. Unless a show cause petition is filed with the Superior Court from which the conviction and Death Warrant were issued within 5 days of the filing of the Superintendent's petition, the Superintendent's list, by order of the Superior Court, will become final and no other party will have standing to challenge its appropriateness.
 - E. In no case may the Superintendent or the Superior Court order or allow more than 17 witnesses to a planned execution, excluding required staff.
 - F. All witnesses must adhere to the facility's search and security provisions in regards to witnessing an execution and may be subject to emergency rules and procedures. Written consent for search will be required using DOC 21-575 Acknowledgment of Visitor Search Requirements.

VI. Execution Holding Cell

- A. Prior to the execution, but no sooner than 24 hours before, the ISDP will be moved to the execution holding cell.
- B. The holding cell will contain:
 1. Bedding that includes a mattress, 2 sheets, 3 blankets, a pillow, and a pillow case,
 2. Personal hygiene items that include 2 towels, a washcloth, and a bar of soap,

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3. Approved personal items and clothing that include underwear, facility clothing, legal materials, religious items, jewelry, or other personal items as requested by the ISDP and approved by the Superintendent, and
4. Other personal items as requested by the ISDP and approved by the Superintendent to be retained by holding cell staff and issued as requested by the ISDP.


- C. A female ISDP may be housed in the WSP Intensive Management Unit (IMU) prior to being moved to the execution holding cell.
- D. Two correctional staff will be posted at the holding cell at all times and a complete log of activities will be maintained.

VII. Final Meal

- A. At the meal period just prior to the time of execution, the ISDP will be allowed to provide his/her meal selection from a menu prepared and provided by the Food Service Manager. The Food Service Manager will ensure preparation and delivery of the meal to the ISDP.

VIII. Execution Preparation

- A. The Superintendent will appoint individuals to support the execution process.
 1. No staff will be required to participate in any part of the execution procedure.
 2. Briefings and rehearsals will be conducted as necessary to ensure adequate preparation for the execution. For an execution by lethal injection, there shall be a minimum of 3 practice sessions preceding an execution that shall include the siting of intravenous (IV) lines.
- B. Medical Review
 1. A physical examination of the ISDP may be conducted to determine any special problems (e.g., collapsed veins, obesity, deterioration of bone or muscular structure) that may affect the execution process. The ISDP's height and weight will be measured during the examination.
 2. Based upon the physical examination, the Superintendent may consult with appropriate experts to determine whether deviation from the policy is advisable to ensure a swift and humane death.
- C. Crowd Control


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1. The Superintendent will notify law enforcement agencies of the date of execution, enabling them to prepare for any traffic and crowd control issues that may arise.
2. Prior to the execution, the Superintendent will hold briefings for local and state law enforcement agencies to determine the manner and extent to which WSP and Department resources will support law enforcement in managing crowd control and potential external threats.
3. An area(s) will be designated for the general public.
4. The WSP Emergency Response Team (ERT) will provide crowd control for the protection of the WSP grounds.
 - a. The ERT Commander(s) will be briefed by the Superintendent prior to the execution.
 - b. In the event that protesters and/or onlookers gather, law enforcement assistance will be requested to direct them to the designated area.


IX. Execution Procedure

A. Lethal Injection

1. Lethal Injection Materials/Personnel
 - a. All tubing, syringes, saline solution, and other apparatus will be on site and verified no later than 7 days prior to the execution.
 - b. The Superintendent will direct the acquisition of the appropriate quantities of lethal substances. These will be available and on site 7 days prior to the execution date.
 - c. The Superintendent will ensure the security and continued verification of all materials.
 - d. Lethal Injection Team members will have sufficient training or experience to carry out the lethal injection process without any unnecessary pain to the ISDP. Minimum qualifications include one or more years of professional experience as a certified Medical Assistant, Phlebotomist, Emergency Medical Technician, Paramedic, military corpsman, or similar occupation.
2. Lethal Injection Table

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- a. The Superintendent, in conjunction with the Plant Manager, will examine and verify that the lethal injection table is in working order with all restraints available.
3. Preparation of the Execution Area
 - a. The Lethal Injection Team will inspect the area designated for lethal injection and make any final recommendations to the Superintendent.
 - b. The Lethal Injection Team will assemble all necessary materials for transport to the chamber no less than one hour prior to the time of execution. The Lethal Injection Team Leader will secure the lethal substances and personally transport them to the chamber.
 - c. The solutions for injection will be prepared not more than 30 minutes prior to administration.
4. Execution Process
 - a. The Superintendent will direct that the ISDP be brought to the chamber. The Escort Team will place the ISDP on the lethal injection table and appropriately secure the ISDP to the table. The Escort Team will then leave the room.
 - b. The Lethal Injection Team will establish 2 IV lines and start a normal flow of saline through each line. The Lethal Injection Team will ensure that a slow, normal saline flow is maintained through each line.
 - c. The Superintendent will ask the ISDP if s/he has any last words.
 - d. Upon notification from the Superintendent, the Lethal Injection Team will introduce the following lethal solutions using a bolus injection into the tubing in the order specified:
 - 1) 3 g thiopental sodium
 - 2) 50 cc normal saline
 - 3) 100 mg pancuronium bromide
 - 4) 50 cc normal saline
 - 5) 240 mEq potassium chloride (KCl)
 - e. Either line may be used for injection of solutions as required. The Superintendent shall observe the ISDP for signs of consciousness before the Lethal Injection Team administers the pancuronium

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bromide. If the Superintendent observes that the ISDP is conscious following the first dose of thiopental sodium, s/he shall direct the Lethal Injection Team to administer an additional 3 g dose of thiopental sodium.

- f. The Lethal Injection Team Leader will signal the Superintendent when all of the solutions have been administered.
- g. At a time deemed appropriate by the Superintendent, the curtains will be closed. The Superintendent will call for the physician to examine the body and make a pronouncement of death.
- h. After the pronouncement of death, the Lethal Injection Team will remain in the area until directed to leave.
- i. Post-execution procedures will be followed.

B. Hanging

- 1. The gallows area trap door(s) and release mechanisms will be inspected for proper operation.
- 2. A determination of the proper amount of drop of the ISDP through the trap door will be made. The following standard military execution drop chart will be used:

<u>WEIGHT (Pounds)</u>	<u>DROP DISTANCE</u>
120	8'1"
125	7'10"
130	7'7"
135	7'4"
140	7'1"
145	6'9"
150	6'7"
155	6'6"
160	6'4"
165	6'2"
170	6'0"
175	5'11"
180	5'9"
185	5'7"
190	5'6"
195	5'5"

 <p>STATE OF WASHINGTON DEPARTMENT OF CORRECTIONS</p> <p>POLICY</p>	APPLICABILITY PRISON		
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200	5'4"
205	5'2"
210	5'1"
220 and over	5'0"

3. Equipment

- a. Hood – The hood will be a neutral color with an outer surface made of rough material, split at the open end so that it will come down over the chest and back.
- b. Collapse Board – A board will be provided for use in case the ISDP collapses.
- c. Restraints – Restraints will be used to ensure that the hands and arms of the ISDP are securely held to his/her front and sides.
- d. Rope – The rope will be manila hemp, at least ¾ inch and not more than 1¼ inches in diameter and approximately 30 feet in length. The rope will be soaked and then stretched while drying to eliminate any spring, stiffness, or tendency to coil. The knot will be treated with wax, soap, or clear oils ensuring a smooth sliding action through the knot. The knot will be tied according to Army regulations.

4. Execution Process

- a. Restraints will be placed on the ISDP by assigned staff.
- b. The Escort Team will escort the ISDP to the gallows area. The ISDP will be placed, standing, in the spot designated by the Superintendent. The Superintendent will ask the ISDP if s/he has any last words.
- c. The hood will be placed on the ISDP and leg restraints applied. If a collapse board appears to be necessary, the Escort Team will put the board in place.
- d. The noose will be placed snugly around the ISDP's neck in such a manner that the knot is directly behind the left ear.
- e. The Superintendent will direct the trapdoor be released.
- f. The Escort Team will move to the lower floor location to assist with removal of the deceased ISDP. The curtains will be closed.

 <p>STATE OF WASHINGTON DEPARTMENT OF CORRECTIONS</p> <p>POLICY</p>	APPLICABILITY PRISON		
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- g. At a time deemed appropriate by the Superintendent, the physician will be called to make a pronouncement of death.

X. Post-Execution Procedure

- A. The Assistant Secretary for Prisons will notify the Secretary and Incident Command Center of the time of death. Necessary calls to Headquarters will be made to the Department Emergency Operations Center.
- B. The Superintendent will inform a designated staff of the time of death, who will then inform the witnesses.
- C. The witnesses will be escorted out of the execution area immediately after the pronouncement of death.
- D. The media witnesses will be escorted to the Information Center.
- E. The Chaplain will provide official notification to the family of the time of death.
- F. The body will be removed from the facility by a pre-determined route.
- G. A post-trauma specialist and the Chaplain will be available to staff preceding, during, and after the execution. Staff will also be provided a confidential list of off-site locations where counseling and/or spiritual support will be available.
- H. Within 20 days after the execution, the Superintendent shall return the Death Warrant to the clerk of the trial court from which it was issued, along with the log identified in the Pre-Execution Procedure section of this policy.

DEFINITIONS:

Words/terms appearing in this policy may be defined in the glossary section of the Policy Manual.

ATTACHMENTS:

Execution Procedures and Assignments Checklist (Attachment 1)

DOC FORMS:

DOC 21-575 Acknowledgment of Visitor Search Requirements

**DEPARTMENT OF CORRECTIONS
WASHINGTON STATE PENITENTIARY
EXECUTION PROCEDURES AND ASSIGNMENTS CHECKLIST**

Inmate:

Date of Execution:

DATE COMPLETED/ STAFF INITIALS	TASK	ASSIGNED PERSONNEL
Compliance Date: Approximately 30 days prior to the scheduled execution		
	Superintendent appoints an Execution Incident Commander.	
	Execution Incident Commander determines the Incident Command System (ICS) objectives, strategies, tactical direction, and organizational structure needed for the execution event and identifies planning elements required.	
	Execution Incident Commander develops a draft Incident Action Plan (IAP) for the execution and submits to the Superintendent for approval. The IAP will contain, at a minimum, all elements identified in this checklist.	
	ISDP is informed of the statutory requirements regarding the method of execution and is advised the Superintendent will request s/he submit his/her election of alternate method in writing.	
	ISDP is given opportunity to designate family members as witnesses.	
	ISDP has been provided a written summary of the procedures governing mail, visitation, telephone use, and available religious services.	
	Mail Room Supervisor is informed, in writing, of the ISDP's name and execution and instructed that: <input type="checkbox"/> All incoming mail addressed to ISDP will be forwarded unopened to a designated Associate Superintendent <input type="checkbox"/> A log will be maintained of all incoming/outgoing mail noting date and time of receipt and distribution <input type="checkbox"/> A separate log will be maintained for legal mail	

DATE COMPLETED/ STAFF INITIALS	TASK	ASSIGNED PERSONNEL
	The facility Public Information Officer has been informed of scheduled date and directed to prepare a media plan.	
	The Intensive Management Unit (IMU) Manager has been informed of mail, visit, telephone use, and available religious services as they apply to the ISDP.	
	ISDP is placed on 30 minute check. Observed behavior is entered in designated log.	
	Chaplain is assigned as Religious Specialist and briefed.	
	Sources and procedures for acquiring the substances necessary for lethal injection have been investigated. Plans being made for acquiring all necessary equipment essential to carry out either mode of execution.	
	Coordination meeting with local law enforcement is scheduled.	
	Lethal Injection Team or Hanging Team, as necessary, is identified and notified.	
	Individuals eligible to witness execution are identified. Appropriate letters sent.	
Compliance Date: Not less than 20 days prior to the execution		
	Superintendent completes changes to IAP and returns to the Execution Incident Commander.	
	Staff assigned an organizational role within the ICS structure are identified and briefed.	
	ICS organization completes identified planning elements, required forms, and documentation for the IAP.	
	Letters received from potential witnesses have been processed.	

DATE COMPLETED/ STAFF INITIALS	TASK	ASSIGNED PERSONNEL
	<p>The chamber has been inspected to ensure the following systems are functional:</p> <p><input type="checkbox"/> Plumbing</p> <p><input type="checkbox"/> Lighting</p> <p><input type="checkbox"/> Emergency Lighting</p> <p><input type="checkbox"/> Mechanical Systems</p> <p><input type="checkbox"/> Locking Systems</p> <p><input type="checkbox"/> Telephones</p> <p><input type="checkbox"/> Sanitation</p> <p><input type="checkbox"/> Furnishings</p> <p><input type="checkbox"/> Toilet Facilities</p>	
	Execution Incident Commander ensures all staff assigned to positions within the chamber receive a briefing and notification of the date and time of "on-site" rehearsal.	
	Execution Incident Commander ensures a written report detailing the condition of the chamber has been submitted to the Superintendent citing any deficiencies. A schedule of corrective actions will be provided.	
Compliance Date: 15 days prior to the execution		
	All changes, improvements, or renovations to the chamber have been completed.	
	Total number of individuals to attend/witness the execution, other than staff, has been identified.	
	Witness applicants have been notified of the final witness list.	
Compliance Date: 14 days prior to execution		
	ISDP is authorized one additional hour of yard time each day.	
	ISDP is provided final opportunity to choose alternate method of execution.	
	All equipment has been procured for either mode of execution.	
	Notification to staff/ISDP for program changes if needed (e.g., visiting, etc.).	
	Arrangements made to ensure Death Certificate will be available. Superintendent is advised.	
Compliance Date: Not less than 10 days prior to the execution		

DATE COMPLETED/ STAFF INITIALS	TASK	ASSIGNED PERSONNEL
	List of authorized witnesses is filed with Superior Court in county of conviction from which Death Warrant issued.	
	Physical examination is conducted, if needed.	
	The following have been checked: <input type="checkbox"/> All equipment required for lethal injection <input type="checkbox"/> All equipment required for hanging, if necessary.	
	Conduct at least 3 lethal injection practice sessions, if necessary, including siting of IV lines.	
	Gallows area trap door(s) and release mechanisms are inspected for proper operation, if necessary.	
	Proper amount of drop of ISDP through the trap door is determined, if necessary.	
	IAP specifically details crowd control strategies and tactics and identifies the operational supervisor/leader.	
Compliance Date: 7 days prior to the execution		
	Execution Incident Commander submits final IAP to the Superintendent and receives signature approval.	
	ISDP is authorized daily visits (in addition to with attorney of record).	
	Instructions are provided to staff on entrance and egress routes.	
	Mobile restroom facilities are placed in the designated demonstration area.	
	Post-execution handling of ISDP is coordinated.	
	Lethal solutions, if required, have been obtained and placed in security lock box.	
	The specific route and mode of body removal is determined and information transmitted to: <input type="checkbox"/> Superintendent <input type="checkbox"/> Execution Incident Commander <input type="checkbox"/> Captain <input type="checkbox"/> Shift Commander <input type="checkbox"/> Washington State Patrol	
	Menu for final meal is prepared and presented to Superintendent for approval.	
Compliance Date: Approximately 5 days prior to the execution		

DATE COMPLETED/ STAFF INITIALS	TASK	ASSIGNED PERSONNEL
	On-site rehearsal has been conducted with all Execution Event staff participating.	
	The holding cell area has been inspected and is ready for occupancy.	
	Security inspections of the entire chamber have been conducted.	
	The holding cell is prepared and equipped with: <input type="checkbox"/> 1 Mattress <input type="checkbox"/> 2 Sheets <input type="checkbox"/> 3 Blankets <input type="checkbox"/> 1 Pillow <input type="checkbox"/> 1 Pillowcase <input type="checkbox"/> 2 Towels <input type="checkbox"/> 1 Washcloth <input type="checkbox"/> 1 Bar of Soap	
	Chamber and all systems have been checked for operation and readiness. All equipment present and functional.	
	Notices are issued to any contract/volunteer staff and/or construction workers of planned suspension of their activities.	
	Arrangements for Death Certificate are confirmed and communicated to the Superintendent/Execution Incident Commander.	
Compliance Date: Approximately 4 days prior to the execution		
	Coordination briefings with local law enforcement agencies have been conducted.	
	All staff assignments made: <input type="checkbox"/> Chamber Security Team <input type="checkbox"/> Correctional Program Managers <input type="checkbox"/> Captain <input type="checkbox"/> Chamber Media Escort Team <input type="checkbox"/> Visiting Room Media Monitor <input type="checkbox"/> Chaplain <input type="checkbox"/> Transport/Restraining Team <input type="checkbox"/> Holding Cell Security Team <input type="checkbox"/> Health Care Manager 2 <input type="checkbox"/> Incident Command Post Staff (Security/Communication) <input type="checkbox"/> Specialty Team Group Supervisor/ERT Leader <input type="checkbox"/> Specialty Team Group Supervisor/SERT Leader	

DATE COMPLETED/ STAFF INITIALS	TASK	ASSIGNED PERSONNEL
	Staff escorts assigned for all non-WSP individuals attending.	
Compliance Date: 24 hours prior to execution		
	Superintendent approves all visitors.	
	ISDP is requested to designate disposition of his/her property/remains in writing.	
	A thorough security inspection of the entire chamber area, including search of cells, has been conducted.	
	Clocks are coordinated.	
	ISDP is moved from IMU to holding cell. Visitors limited to approved clergy and attorney of record.	
	Upon arrival at the holding cell, ISDP is informed of conditions of confinement.	
	The IAP is initiated and Incident Command Post opened and staffed.	
	Main facility is briefed at roll call of extraordinary security measures.	
	A designated staff to operate PBX reports for work.	
Execution Day		
	Chamber Access Security Team (Shift A) reports to duty station in chamber.	
	Cell Security Team (Shift A) reports to duty station in chamber.	
	Lethal solutions, if needed, are transferred to the injection room in the chamber.	
	Final meal is prepared and served to ISDP.	
	Chamber Access Security Team Shift B relieves Shift A.	
	Cell Security Team Shift B relieves Shift A.	
	Authorized media representatives are allowed access to the facility and are briefed by the Superintendent/designee.	
	All witnesses have been assigned escorts and allowed access to the facility.	
	All traffic through information desk area, visitor tunnel is cleared.	
	All staff designated as participants are at duty stations in the chamber.	

DATE COMPLETED/ STAFF INITIALS	TASK	ASSIGNED PERSONNEL
	Department Secretary has been contacted by telephone from the Incident Command Post/Communications Center and an open line from the Department Emergency Operations Center to the chamber is established.	
	Incident Command Post/Communications Center contacts the Attorney General's Office by telephone and maintains an open line.	
	Lethal Injection Team enters and the equipment for injection mode and back-up equipment is tested, if necessary.	
	Hanging Team enters the gallows area and the equipment and back-up equipment is tested, if necessary.	
	Open line participants verify and concur no stay has been received. The time is _____ or later and the execution is to proceed.	
	Superintendent is in place in chamber.	
	ISDP is placed in restraints and escorted to the appropriate execution area.	
	All pre-execution preparations are completed. All participants are in place.	
	Assistant Secretary confirms that no stays have been granted.	
	Assistant Secretary informs Superintendent that there are no stays.	
	Superintendent signals the execution to proceed.	

EXHIBIT 3

DECLARATION OF DAN J. PACHOLKE

I, DAN J. PACHOLKE, make the following declaration:

1. I am currently employed as the Prison Administrator for the Department of Corrections (DOC). As the Prison Administrator, I supervise the operation of a number of Washington State prisons, including the Washington State Penitentiary (WSP). I am over the age of eighteen and competent to testify as a witness. The declaration set forth below is based on my personal knowledge.

2. Before I became the Prison Administrator, I was a prison superintendent at the following DOC prison facilities: Cedar Creek Corrections Center (2003-2006), Stafford Creek Correction Center (2007-2008), and interim superintendent at the Monroe Correctional Complex (2008). I have worked for DOC for 26 years.

3. As the DOC Prison Administrator, I supervise the WSP Superintendent, Stephen Sinclair. I am familiar with DOC Policy 490.200, Capital Punishment.

4. Superintendent Sinclair has reported to me that each member of the lethal injection team has sufficient training or experience to carry out the lethal injection process without any unnecessary pain to Mr. Stenson. Superintendent Sinclair has reported to me the individual team members who will assist in the execution by lethal injection will each have one or more years of professional experience as a certified Medical Assistant, Phlebotomist, Emergency Medical Technician, Paramedic, military corpsman, or similar occupation, as required by DOC Policy 490.200, Directive IX(A)(1)(d).

5. Pursuant to the requirements of DOC Policy 490.200, Directive VIII(1)(2) practice sessions have been conducted at WSP in anticipation of Mr. Stenson's scheduled execution. I have been present during at least two sessions for lethal injection and two sessions for hanging.

6. Regarding lethal injection, I attended two practice sessions on October 14, 2008, in the execution chamber at WSP. Each of these sessions involved a full walk-through of the

entire lethal injection process and the insertion of intravenous lines in both arms of two individuals. The lethal injection process includes the escorting in of the inmate subject to the death penalty, the placing of this person on the table, and the insertion of the intravenous lines. In one practice session, I assumed the role of the inmate subject to the death penalty. I was placed on the gurney in the execution chamber and strapped to the gurney. From there, I observed the actions of the lethal injection team. In the other practice session, I assumed the role of the superintendent while Superintendent Sinclair assumed the role of the inmate subject to the death penalty. Again, I observed the actions of the lethal injection team. In both practice sessions, two separate intravenous lines were inserted into either my arms or the arms of Superintendent Sinclair, one intravenous line on each arm, and flows of saline were initiated. Thereafter, members of the lethal injection team went through the tasks of simulating the application of the substances called for under the DOC Policy 490.200, sodium thiopental, pancuronium bromide, and potassium chloride. When I assumed the role of an inmate, I felt little or no pain during the practice session. The insertion of the needle and catheter occurred very much like when I have given blood. The lines were inserted with no apparent difficulty. I also observed nothing indicating that Superintendent Sinclair experienced any pain as the intravenous lines were inserted into his arms during the practice session in which he assumed the role of the inmate. Lethal injection team members performed their respective roles without any apparent difficulty. They all appeared to know their assignments and performed them without any difficulty.

7. I attended two practice sessions for hanging on October 19, 2008, at WSP. During both sessions, I was present on the upper floor of the execution chamber where the inmate subject to the death penalty would be escorted prior to an execution by hanging. In each of the practice sessions I witnessed, a mannequin was "dropped" through the trap door. Both practice sessions occurred without any difficulty and the steps leading up to and including the execution occurred according to DOC Policy 490.200.

8. In the practice sessions involving the mannequin, the noose was placed tightly around the mannequin's neck with the noose knot directly behind the mannequin's left ear and the running part of the noose (or the loop) placed in the front of the mannequin's neck. After the noose has been securely placed, the trap door is opened and the mannequin falls through and the rope is extended to five full feet. In each of these sessions, the hanging mechanisms functioned without error or incident.

9. Based on my observations of the execution practice sessions discussed above and on my conversations with Superintendent Sinclair, I observed nothing indicating any inability by either the execution team or Superintendent Sinclair in carrying out DOC Policy 490.200.

10. I will be present in the execution chamber during Mr. Stenson's execution and will ensure that DOC Policy 490.200 is followed.

I declare under the penalty of perjury that the foregoing is true and correct to the best of my knowledge.

DATED this 7 day of November, 2008, at Olympia, Washington.



DAN J. PACHOLKE

EXHIBIT 4

DECLARATION OF MARK DERSHWITZ, M.D., Ph.D.

1. I am a medical doctor with a Ph. D. in Pharmacology. A true and accurate copy of my curriculum vitae is attached as Exhibit A. I am licensed to practice medicine in the states of Massachusetts and Maine. I am currently an anesthesiologist at the University of Massachusetts and I am certified by the American Board of Anesthesiology. I am currently Professor of Anesthesiology and Biochemistry & Molecular Pharmacology at the University of Massachusetts.
2. I have done extensive research and written numerous review articles and research papers on the use of anesthetics and I regularly practice medicine in that capacity. My research includes the study of pharmacodynamics and the pharmacokinetics of drugs. Pharmacokinetics is the study of the time course of a drug, while pharmacodynamics refers to the effects of a drug. Prior to my current appointment at the University of Massachusetts, I was an Instructor, Assistant Professor and Associate Professor at Harvard Medical School.
3. I have testified as an expert witness concerning the pharmacokinetics and the pharmacodynamics of anesthetic drugs and other medications. I have testified in court as an expert witness on seventeen occasions. I have given thirty-six depositions as an expert witness.
4. I have reviewed the protocols for the lethal injections used in the states of Arkansas, Alabama, California, Florida, Georgia, Kentucky, Maryland, Missouri, Montana, North Carolina, Ohio, Oklahoma, South Carolina, Texas and Virginia and by the federal government. In addition, I have reviewed the document from

the State of Washington Department of Corrections entitled, "Capital Punishment," and numbered "DOC 490.200." Each of the states and the federal government employ similar protocols for carrying out lethal injections. While the protocols and the jurisdictions differ in terms of the doses of the three medications used, each of these protocols will render an inmate unconscious quickly and cause the inmate's rapid and painless death.

5. Some medical paraprofessionals, such as nurses, emergency medical technicians, and paramedics, may be trained to insert intravenous catheters. If a medical paraprofessional routinely inserts intravenous catheters as a part of his or her regular job, it is reasonable to assign the task of inserting the intravenous catheter in an inmate to this person.
6. The protocol used in Washington states that medications will be administered as follows:
 - a. Thiopental sodium, 3 grams, will be injected.
 - b. Saline, 50 mL, will be injected to flush the IV line.
 - c. The Superintendent will observe the inmate for signs of consciousness. If the Superintendent observes that the inmate is conscious, an additional dose of thiopental sodium, 3 grams, will be injected.
 - d. Pancuronium bromide, 100 mg, will be injected.
 - e. Saline, 50 mL, will be injected to flush the IV line.
 - f. Potassium chloride, 240 mEq, will be injected.
 - g. The superintendent will direct the physician on site to examine the inmate

and pronounce death.

7. I have performed a pharmacodynamic analysis to predict the probability of response as a function of the predicted brain concentration of thiopental. This analysis is attached as Exhibit B. There are two responses to thiopental depicted in Exhibit B. The first response is the probability of unconsciousness. In this context, unconsciousness is defined as the drug-induced inability to perform a simple command such as "raise your right arm." An unconscious person is unable to perceive his or her environment. The second response is the probability of burst suppression. Burst suppression is a state of the brain as measured by an electroencephalograph (EEG) in which the EEG demonstrates the periodic absence of electrical activity. This state is readily demonstrable during the administration of clinical anesthesia for surgical procedures by using available clinical monitors. While burst suppression is easy to measure, it is a state of anesthesia that is deeper than that required for the performance of surgery.
8. I have performed a pharmacokinetic analysis to predict the brain concentration of thiopental in a man weighing 106 kg following the administration of a 3-gram dose of thiopental sodium. I assumed that the thiopental solution was injected at a rate of 50 mg/sec (50 milligrams per second). My pharmacokinetic analysis is attached as Exhibit C. This pharmacokinetic graph shows the predicted concentration of thiopental in the brain of a 106-kg man as a function of time following a dose of 3 grams. The y-axis is the predicted concentration of

thiopental in the brain measured in mcg/mL (micrograms per milliliter). The x-axis is time in minutes. As shown in Exhibit C, after the administration of 3 grams of thiopental sodium, the brain concentration of thiopental would peak at a concentration of about 84 mcg/mL about 3.5 minutes after beginning the injection.

9. The lower dashed line in Exhibit C indicates the brain concentration at which there is an approximately 95% probability of unconsciousness. This predicted concentration is exceeded for more than an hour following the beginning of the injection, assuming that the inmate continued to breathe.
10. The upper dashed line in Exhibit C indicates the brain concentration at which there is an approximately 95% probability of burst suppression. This predicted concentration is exceeded for approximately ten minutes following the beginning of the injection, assuming that the inmate continued to breathe.
11. A dose of 3 grams of thiopental sodium will cause virtually all persons to stop breathing. Thus, although the subsequent administration of pancuronium bromide, a paralytic agent, would have the effect of paralyzing the person and preventing him or her from being able to breathe, virtually every person given 3 grams of thiopental sodium will have stopped breathing prior to the administration of pancuronium bromide. Thus, even in the absence of the administration of pancuronium bromide and potassium chloride, the administration of 3 grams of thiopental sodium by itself would cause death to almost everyone.

12. I have co-authored a recently published article discussing in much greater detail the pharmacology of the medications used in lethal injection. This article is appended as Exhibit D.
13. Therefore, it is my opinion to a reasonable degree of medical certainty that there is an exceedingly small risk that a condemned inmate to whom 3 grams of thiopental sodium is properly administered pursuant to the lethal injection protocol of the State of Washington would experience any pain and suffering associated with the administration of lethal doses of pancuronium bromide and potassium chloride.
14. It is my opinion to a reasonable degree of medical certainty, the proper application of the of the State of Washington lethal injection protocol will result in the condemned inmate undergoing a rapid, painless and humane death, and furthermore, the inmate will not experience any unnecessary pain or suffering.

I declare under the penalty of perjury that the foregoing is true and correct.

Executed on November 3, 2008


By  M.D.
Mark Dershwitz, M.D., Ph.D.

EXHIBIT A
CURRICULUM VITAE
(prepared 3 November 2008)

NAME: Mark Dershwitz

ADDRESS: 33 Wildwood Drive
Sherborn, MA 01770
Telephone (508) 651-1120

PLACE OF BIRTH: Dearborn, MI

EDUCATION:

1974	B.A. cum laude Chemistry, with Departmental Honors Oakland University, Rochester, MI 48063
1982	Ph.D. (Pharmacology) Northwestern University, Evanston, IL 60201
1982	M.D. Northwestern University, Chicago, IL 60611

POSTDOCTORAL TRAINING:

INTERNSHIPS AND RESIDENCIES:

1983	Transitional Resident Carney Hospital, Boston, MA 02124
1984-1986	Resident in Anesthesia Massachusetts General Hospital, Boston, MA 02114

RESEARCH FELLOWSHIPS:

1986-1988	Department of Anesthesia Massachusetts General Hospital, Boston, MA 02114
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LICENSURE AND CERTIFICATION:

1984	Massachusetts
1987	American Board of Anesthesiology
1990	Maine
2005	American Board of Anesthesiology, Maintenance of Certification in Anesthesiology

ACADEMIC APPOINTMENTS:

1977-1979	Lecturer in Pharmacology, Illinois College of Podiatric Medicine
1979-1982	Lecturer in Pharmacology, Illinois College of Optometry
1984-1987	Clinical Fellow in Anæsthesia, Harvard Medical School
1987-1990	Instructor in Anæsthesia, Harvard Medical School
1990-1997	Assistant Professor of Anæsthesia, Harvard Medical School
1997-2000	Associate Professor of Anæsthesia, Harvard Medical School
2000-	Professor and Academic Vice Chair of Anesthesiology Professor of Biochemistry & Molecular Pharmacology University of Massachusetts Medical School

HOSPITAL APPOINTMENTS:

1986-1990	Assistant in Anesthesia, Massachusetts General Hospital
1990-1996	Assistant Anesthetist, Massachusetts General Hospital
1996-2000	Associate Anesthetist, Massachusetts General Hospital
2000-2002	Clinical Associate in Anesthesia, Massachusetts General Hospital
2000-	Anesthesiologist, UMass Memorial Medical Center

AWARDS AND HONORS:

1972	Michigan Higher Education Association Scholarship
1972-1974	Oakland University Competitive Scholarship
1973-1974	National Merit Scholarship
1979	American Society for Pharmacology and Experimental Therapeutics Travel Award
1981	Biophysical Society Samuel A. Talbot Award
1982	Alpha Omega Alpha Research Award
1986-1988	NIH National Research Service Award
2001	Distinguished Alumnus Award Oakland University Department of Chemistry
2002	Outstanding Teacher Award University of Massachusetts Department of Anesthesiology
2003	Outstanding Medical Educator Award University of Massachusetts Medical School
2003	Outstanding Teacher Award University of Massachusetts Department of Anesthesiology
2004-	Listed in <i>Who's Who in America</i>
2005	Teaching Recognition Award, Honorable Mention International Anesthesia Research Society

MEMBERSHIPS IN PROFESSIONAL SOCIETIES:

Association of University Anesthesiologists
 American Society of Anesthesiologists
 American Society for Pharmacology and Experimental Therapeutics
 American Society for Clinical Pharmacology and Therapeutics
 International Anesthesia Research Society
 Biophysical Society
 International Society for Anesthetic Pharmacology
 Massachusetts Medical Society
 Anesthesia History Association

RESEARCH INTERESTS:

Intravenous anesthetics
 Antiemetics
 Monitoring depth of anesthesia
 Malignant hyperthermia

RESEARCH FUNDING:

1986-1988	National Institutes of Health GM11656 (PI) The role of glutathione in malignant hyperthermia
1988-1989	Anaquest, Inc. (PI) Comparison of the sedative effects of midazolam and butorphanol
1989-1990	Glaxo, Inc. (Co-I) A randomized, double-blind comparison of intravenous ondansetron and placebo in the prevention of postoperative nausea and vomiting in female patients undergoing abdominal gynecological surgical procedures
1990-1991	Glaxo, Inc. (Co-I) A randomized, double-blind, placebo-controlled study of the effects of two dose levels of intravenous ondansetron on respiratory depression induced by alfentanil in healthy male volunteers
1991-1992	Glaxo, Inc. (Co-I) A dose finding and comparative trial of GI87084B and alfentanil for anesthesia maintenance
1992-1993	Glaxo, Inc. (Co-I) Pharmacokinetics and pharmacodynamics of GI87084B in subjects with hepatic impairment compared to subjects with normal hepatic function

- 1993-1994 Marion Merrell Dow, Inc. (PI)
A randomized, double-blind, placebo-controlled, dose response trial to assess single dose intravenous dolasetron mesylate in patients experiencing postoperative nausea and vomiting
- 1993-1994 Marion Merrell Dow, Inc. (PI)
A randomized, double-blind, placebo-controlled, dose response trial to assess single dose intravenous dolasetron mesylate in preventing postoperative nausea and vomiting
- 1993-1994 Glaxo, Inc. (Co-I)
Pharmacokinetics and pharmacodynamics of GI87084B in subjects with renal impairment compared to subjects with normal renal function
- 1995-1996 Glaxo, Inc. (PI)
A randomized, double-blind, dose-response study of ondansetron in the prevention of postoperative nausea and vomiting in inpatients
- 1996-1997 Aradigm Corporation (Co-I)
Comparison of the pharmacokinetics and pharmacodynamics of inhaled versus intravenous morphine sulfate in healthy volunteers
- 1999-2000 Searle, Inc. (PI)
Clinical Protocol for a Double-blind, Placebo-Controlled, Randomized Study of the Efficacy of Parecoxib 20 mg IV and Parecoxib 40 mg IV Given Postoperatively to Determine Narcotic-Sparing Effectiveness in a Post-General Surgery Pain Model

CLINICAL RESPONSIBILITIES:

- 1986-1988 Attending Anesthesiologist (20% clinical responsibility)
Massachusetts General Hospital
- 1988-2000 Attending Anesthesiologist (50% clinical responsibility)
Massachusetts General Hospital
- 1994-1997 Team Leader, East-West Anesthesia Service
Massachusetts General Hospital
- 1997-2000 Team Leader, General Surgery Anesthesia Service
Massachusetts General Hospital
- 2000- Attending Anesthesiologist (45% clinical responsibility)
UMass Memorial Medical Center

TEACHING EXPERIENCE:

1976-1980	Dental Hygiene Pharmacology Northwestern University Dental School 5 hours and Course Director
1977-1979	Medical Pharmacology Illinois College of Podiatric Medicine 22 hours and Course Director
1978-1981	Dental Pharmacology Northwestern University Dental School 3 hours
1979-1982	General Pharmacology Illinois College of Optometry 20 hours and Course Director
1979-1982	Ocular Pharmacology Illinois College of Optometry 10 hours and Course Director
1980-1981	Nursing Pharmacology, Northwestern University 5 hours
1994-	HST 150 Introduction to Pharmacology Harvard-MIT Program in Health, Science and Technology 4 hours
1996-	Harvard Anesthesia Review and Update 1-2 hrs
2001-	Medical Pharmacology University of Massachusetts Medical School 11-16 hrs and Course Co-Director
2007-	Medical Biochemistry University of Massachusetts Medical School 2 hrs

VISITING PROFESSORSHIPS:

April 6-7, 1994:	University of Pennsylvania
May 17-18, 1994:	University of North Carolina at Chapel Hill
Sept. 20-22, 1994:	State University of New York at Stony Brook
April 5-6, 1995:	Albany Medical College
May 8-10, 1997:	University of Texas Southwestern Medical Center
Dec. 8-9, 1998	Temple University
Dec. 16-17, 1998	University of Pittsburgh

COMMITTEE MEMBERSHIPS:

LOCAL:

2000 -	Pharmacy and Therapeutics Committee UMass Memorial Medical Center
2001 -	Physician Health and Well-Being Committee UMass Memorial Medical Center
2001 -	Educational Policy Committee University of Massachusetts Medical School
2008 -	Ethics Committee University of Massachusetts Medical School

NATIONAL:

1999 -2002	Subcommittee on Anesthetic Action and Biochemistry American Society of Anesthesiologists
2001 -	Subcommittee on Drug Disposition American Society of Anesthesiologists

EDITORIAL BOARD MEMBERSHIPS:

2000 -	International Anesthesiology Clinics
2008 -	AccessAnesthesiology (Editor-in-Chief)

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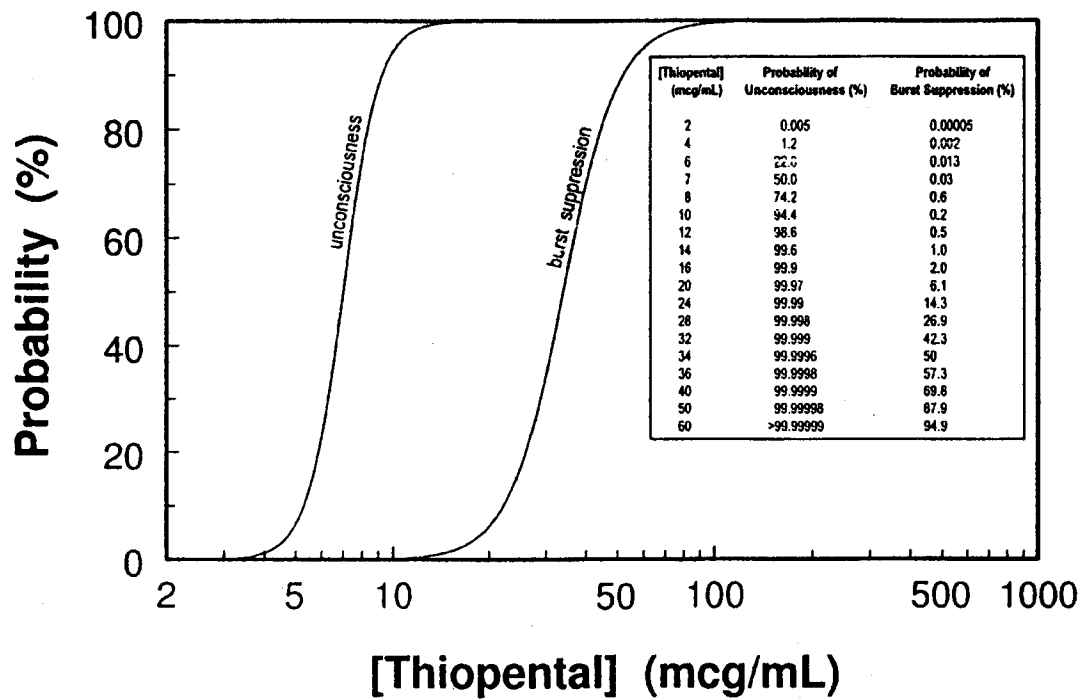
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EXHIBIT B



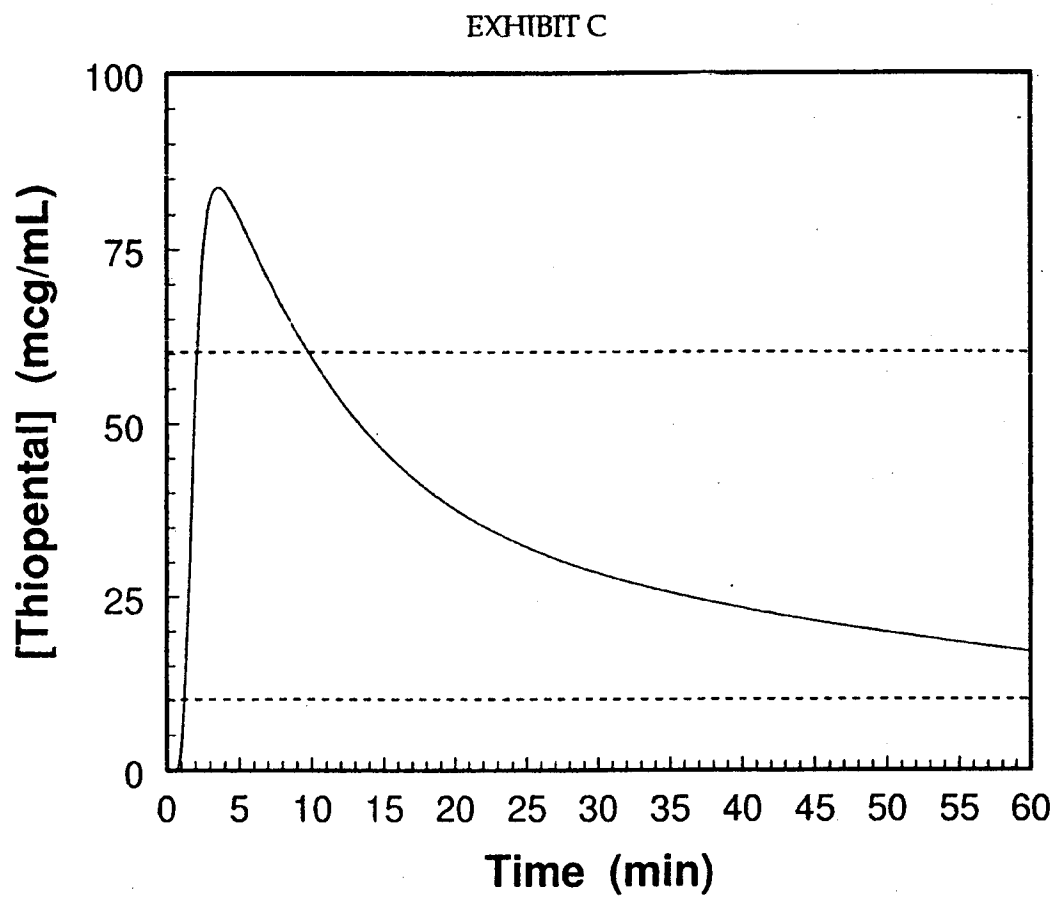
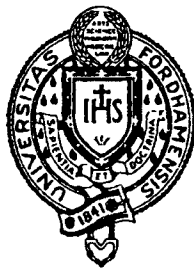


Exhibit D

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THE PHARMACOKINETICS AND PHARMACODYNAMICS OF THIOPENTAL AS USED IN LETHAL INJECTION

Mark Dershwitz, M.D., Ph.D. & Thomas K. Henthorn, M.D.***

Thiopental (sometimes called, although inaccurately, Sodium Pentothal) was the most commonly used intravenous anesthetic agent for about fifty years, beginning in the mid-1940s.¹ As states began to discuss and develop protocols for lethal injection in the 1970s, thiopental was the logical choice as the medication to render the inmate unconscious prior to the administration of subsequent medications, most commonly pancuronium (a medication that paralyzes skeletal muscle and results in cessation of breathing) followed by potassium chloride (a salt that is a necessary component of the diet but when given intravenously in large doses results in the cessation of electrical activity in the heart).

It is virtually unanimously accepted by physicians, particularly anesthesiologists, that the administration of lethal doses of pancuronium and/or potassium chloride to a conscious person would result in extreme suffering. For this reason, all of the protocols for lethal injection that we have reviewed precede the administration of pancuronium and potassium chloride with a dose of thiopental intended to render the inmate unconscious for a period of time far in excess of that necessary to complete the execution.² When implemented as written, meaning the correct doses of the correct medications are administered in the correct order into a properly functioning intravenous delivery system and with sufficient time for thiopental to produce its effect, all of the protocols we have reviewed are intended to result in the rapid death of the inmate without undue pain or suffering.

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1. See A.S. Evers et al., *General Anesthetics*, in GOODMAN & GILMAN'S THE PHARMACOLOGICAL BASIS OF THERAPEUTICS 341, 342 (Laurence L. Brunton et al. eds., McGraw-Hill, 11th ed. 2006).

2. One or both of the authors has reviewed the protocols used by Alabama, Arkansas, California, Delaware, Florida, Georgia, Kentucky, Maryland, Missouri, Montana, North Carolina, Ohio, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and the federal government.

This paper will concentrate on the pharmacokinetics and pharmacodynamics of thiopental. As applied here, pharmacokinetics is the study of the concentration of thiopental as a function of time in tissues (particularly brain), while pharmacodynamics is the study of the effects of thiopental (particularly the production of unconsciousness and impairment of the heart's ability to circulate blood).³ By using generally accepted computer modeling techniques, and considering the wealth of published studies on the pharmacology of thiopental, we can prepare predictions of such relevant parameters as the onset (how long it takes for the inmate to become unconscious) and duration (how long the inmate would remain unconscious) of the pharmacological effects of thiopental.⁴

Thiopental is usually described as an "ultra-short acting" sedative/hypnotic agent in pharmacology and anesthesiology texts.⁵ This description is semantically correct, but only when thiopental is compared to other barbiturates. Indeed, when thiopental was used to induce (i.e., begin) a general anesthetic, the typical adult dose was about 300 mg and the typical patient would remain unconscious for 5 to 10 minutes.⁶ The usual anesthetic regimen would involve the subsequent administration of anesthetic gases that would keep the patient unconscious for the duration of the surgical procedure. The protocols for lethal injection mandate doses of thiopental ranging from 2000 to 5000 mg, i.e., about seven to sixteen times higher than those used to begin a typical anesthetic.⁷ However, the relationship between the dose of thiopental and its duration of action is *not* linear. For example, as the dose of thio-

3. K.B. Johnson & Talmage D. Egan, *Principles of Pharmacokinetics and Pharmacodynamics: Applied Clinical Pharmacology for the Practitioner*, in ANESTHESIOLOGY 821, 821 (D.E. Longnecker et al. eds., McGraw-Hill 3d ed. 2008).

4. See generally Colin A. Shanks et al., *A Pharmacokinetic-Pharmacodynamic Model for Quantal Responses with Thiopental*, 21 J. PHARMACOKINETICS & BIOPHARMACODYNAMICS 309, 309-21 (1993) (providing the pharmacokinetic model for thiopental and the pharmacodynamic model for burst suppression); see also Robert J. Telford et al., *Fentanyl does not Alter the "Sleep" Plasma Concentration of Thiopental*, 75 ANESTHESIA & ANALGESIA 523, 523-29 (1993) (providing the pharmacodynamic model for unconsciousness).

5. Thiopental is "ultra-short acting" only in comparison to the barbiturates that are classified as "short-acting," "intermediate-acting," and "long-acting." This differentiation is primarily of historical interest. See, e.g., LOUIS S. GOODMAN & ALFRED GILMAN, *THE PHARMACOLOGICAL BASIS OF THERAPEUTICS* 138 (Macmillan Co., 2d ed. 1955).

6. Mark Dershwitz & C.E. Rosow, *Intravenous Anesthetics*, in ANESTHESIOLOGY, *supra* note 3, at 849, 856.

7. See *supra* note 2 for the list of states whose protocols the authors have reviewed.

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pental is increased sevenfold to 2000 mg, the duration of unconsciousness is *not* also increased sevenfold but actually much more, as described later. The pharmacological term "sedative/hypnotic" means that at low doses (e.g. 25 - 100 mg), thiopental causes sedation (i.e., sleepiness), while at higher doses it produces hypnosis (i.e., unconsciousness).⁸ At sedative doses, it produces no analgesia (pain relief) and in fact probably increases the perception of painful stimuli. When a person is rendered unconscious by thiopental, the conscious perception of pain is abolished. The body may, however, react in a reflex manner to pain and exhibit such phenomena as movement, a fast heart rate, sweating, or tearing. Additionally, the state of consciousness produced by a drug is also affected by the strength of applied stimuli. Thus, at the threshold of unconsciousness pain may reverse the state and produce consciousness, making it difficult to distinguish between reflex responses to pain and conscious response. Therefore, it has been argued by some that deep unconsciousness, as defined by burst suppression on the electroencephalogram ("EEG"), be the level of unconsciousness produced in lethal injection.⁹

We will present models to describe the onset and duration of unconsciousness as a function of the dose of thiopental. For example, with the administration of 2000 mg of thiopental to an 80-kg person, loss of consciousness will occur within approximately 1.0 to 1.5 minutes, while duration of unconsciousness will last approximately two hours. The time for onset of burst suppression in the same individual would be approximately 1.5 to 2.5 minutes and would reliably last only seven minutes. Larger doses of thiopental will be shown to result in further prolongation of the duration of unconsciousness and burst suppression.

There is an enormous body of anesthesiology literature supporting the use of mathematical modeling of the pharmacokinetic and pharmacodynamic behavior of intravenous anesthetic agents like thiopental.¹⁰ Such modeling underlies the commonly utilized tech-

8. Dershwitz & Rosow, *Intravenous Anesthetics*, *supra* note 6, at 850.

9. See Testimony of Thomas K. Henthorn, Taylor vs. Crawford et al., No. 05-4173-CV-S-FJG, 2006 WL 1779035, slip op at *7 (W.D. Mo. June 26, 2006).

10. See, e.g., such comprehensive review articles and book chapters as: Dershwitz & Rosow, *supra* note 6, at 849-68; J. Sear, *Total Intravenous Anesthesia*, in *ANESTHESIOLOGY*, *supra* note 3, at 897, 897-917; Thomas K. Henthorn, *The Effect of Altered Physiological States on Intravenous Anesthetics*, 182 *HANDB. EXP. PHARMACOL.* 363, 363-77 (2008); Thomas K. Henthorn, *Recirculatory Pharmacokinetics: Which Covariates Affect the Pharmacokinetics of Intravenous Agents?*, 523 *ADV. EXP. MED. BIOL.* 27, 27-33 (2003); Harmut Derendorf et al., *Pharmacokinetic/Pharmacodynamic Modeling in Drug research and Development*, 49 *J. CLIN. PHARMACOL.* 1399, 1399-

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nique of target-controlled intravenous drug infusions. Mathematical modeling of intravenous anesthetics has been extensively studied and has been validated in the real world practice of target-controlled infusions ("TCI").¹¹ TCI couples a small computer with an infusion pump so that multi-compartment models are used to predict and adjust anesthetic drug infusion rates on a second-by-second basis to reach and maintain plasma concentrations determined by the practitioner.¹² TCI devices are in common use in anesthetic practice worldwide. Median absolute performance errors for TCI of predicted versus actual drug concentrations are in the range of $\pm 30\%$ when literature values for pharmacokinetic parameters are used to drive the TCI device.¹³ Therefore, similar errors can be expected when applying the simulations presented here to any given individual. Thus the methodology employed in performing the pharmacological simulations employed herein has undergone peer review and its application to the actual practice of anesthesia is well studied.

I. THE ONSET TIMES FOR THIOPENTAL ADMINISTERED AT VARIOUS RATES

No drug, including thiopental, has an effect the moment it is injected. It must first be transported by circulating blood to the site of action, i.e., the brain in the case of thiopental. The drug must then cross the blood-brain barrier to reach drug receptors in the neural cells of the brain. The drug-receptor interaction then triggers a cellular response resulting in the drug effect. As thiopental concentrations at the site of action continue to rise, more intense drug responses are seen. The interval between injecting the drug, and seeing an effect, i.e. the process of accumulating adequate drug concentrations in the blood and subsequently the brain, is called hysteresis.¹⁴ A good way to think about hysteresis is to compare it to using a stove. Turning the flame on is akin to injecting the drug; transporting the heat to the surface of the pan is analogous to the

1418 (2000); D.R. Stanski, *Pharmacodynamic Modeling of Anesthetic EEG Drug Effects*, 32 ANNU. REV. PHARMACOL. TOXICOL. 423, 423-47 (1992).

11. See Talmage D. Egan, *Target-Controlled Drug Delivery: Progress Toward an Intravenous "Vaporizer" and Automated Anesthetic Administration*, 99 ANESTHESIOLOGY 1214, 1215 (2003).

12. *Id.*

13. See *id.* at 1216-17; see also Robert A. Veselis et al., *Performance of Computer-Assisted Continuous Infusion at Low Concentrations of Intravenous Sedatives*, 84 ANESTHESIA & ANALGESIA 1049, 1053-57 (1997).

14. Johnson & Egan, *supra* note 3, at 825.

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circulation delivering the drug to the site of action; and cooking the food in the pan is akin to producing the drug effect. Your dinner can range from undercooked to well done, depending on how long it's exposed to the flame "dose" the stove is delivering. Similarly the heating effect continues for some time even after the flame is turned off. Therefore, with hysteresis it is possible to have the same effect at two different plasma drug concentrations just as it is possible for a pan to be at the same temperature at two different flame settings, once during heating and again during cooling. Pharmacokinetic-pharmacodynamic modeling is able to mathematically describe this hysteresis and fully explain how the same blood drug concentration can produce variable effects.¹⁵

In a lethal injection setting, once an injection of thiopental has begun, the drug must pass through the IV tubing from the "injection room" to the "death chamber" before reaching the vein of the condemned inmate. For instance, if the tubing is ten feet long with a typical tubing volume of 1.8 mL/foot, then the total volume is 18 mL. Assuming fluid traveling in a tube as a perfect cylinder and an injection speed of 2 mL/sec, it would take a full 9 seconds for the drug to reach the vein.

After entering the bloodstream the drug must circulate with the blood to reach the brain before concentrations at the site of effect can begin to rise. Depending on where the intravenous catheter is placed in the inmate, it could take up to 15 seconds for the drug to reach the right-sided chambers of the heart and thus be considered within the central circulation where the flow of blood is at its greatest. From the right side of the heart, the blood flows through the pulmonary arteries to the capillaries of lungs, recombines in the pulmonary veins and flows back to the left side of the heart. The powerful left ventricle of the heart then pumps the blood out through the aortic arch into all of the arteries of the body, including the carotid and vertebral arteries leading to the brain.

The principles governing the time required for an injected drug to pass through IV tubing to reach the vein also apply to the drug within the bloodstream. That is, the time elapsed is directly related to the volume of the system and the flow rate of the fluid in the system. The volume of the central circulation as a percentage of the body's total blood volume is near maximum when lying flat, approximately one third of the total blood volume or 1.7 L for the typical male inmate. It would be higher tilted head down and

15. See generally *id.* at 825.

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lower when standing. In a sedated adult it would be reasonable to assume a total blood flow (or cardiac output) of 5 L/min. Thus the time required for drug just arriving in the right side of the heart to pass through the central circulation to reach the brain would be 1.7 L divided by 5 L/min, which is approximately 20 seconds.

Adding the 15 seconds for venous transit (times vary greatly with the distance from the heart and the flow in the particular vein selected for the intravenous catheter) to the 20 seconds for central circulation transit, one can appreciate the concept of arm-brain circulation time, which is empirically spoken of among anesthesiologists as being approximately one-half minute. Again, there will be an additional 9 seconds or so added to time required to see the initial thiopental response due to the very long length of intravenous tubing leading from the "injection room" to the "death chamber."

In the fluid medium of the body, drug diffuses from areas of high concentration to adjacent areas where the concentration is lower. During the onset of effect, thiopental diffuses from the blood where the concentrations become quite high, after the initial 35 seconds required for transit, into the brain where the thiopental concentration starts at zero. Without continued thiopental administration, diffusion continues in this direction for approximately 2.5 minutes, at which time blood and brain concentrations are momentarily equal. Then diffusion reverses direction and the drug begins to move from the brain back into the blood. Brain concentrations will continue to fall at a rate governed by the decrease in blood concentrations since brain concentrations will never fall below those of the blood during this phase. Figure 1 depicts the probability of unconsciousness or burst suppression as a function of the brain concentration of thiopental.

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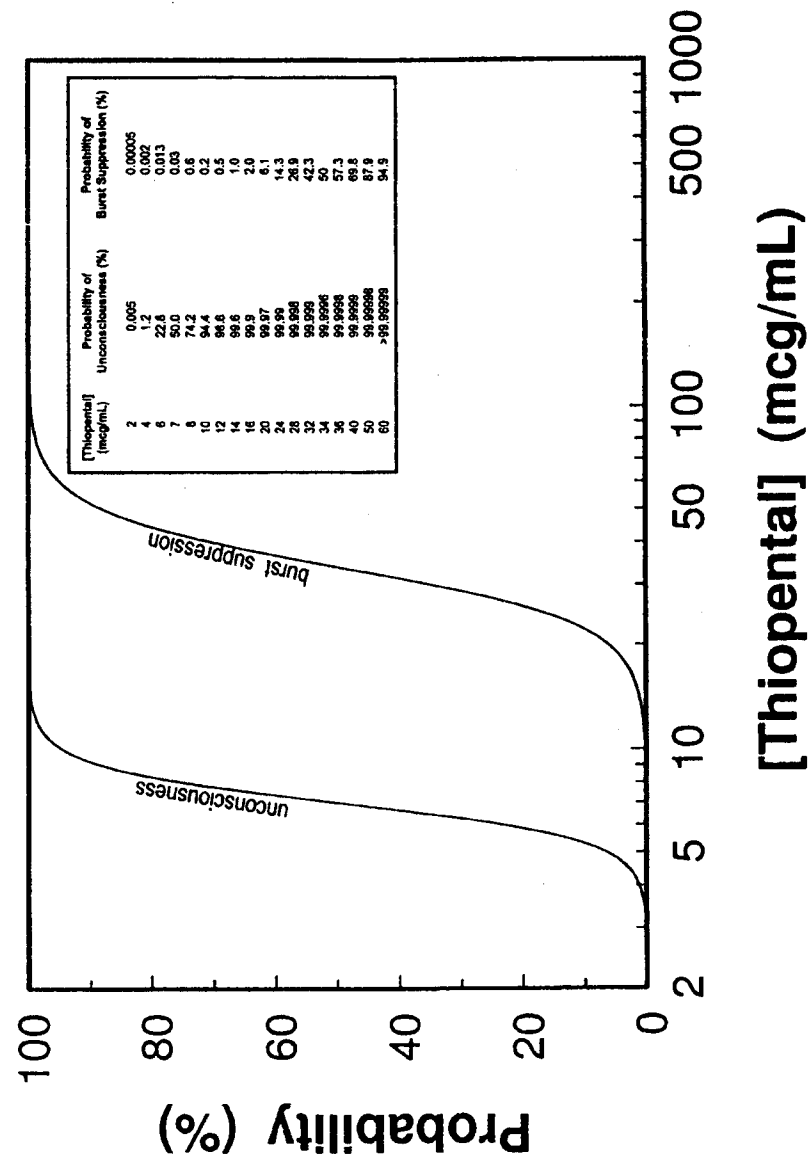


Figure 1: The probability that a person will experience unconsciousness or burst suppression on the EEG as a function of the brain concentration of thiopental. Note that the x-axis is shown as a logarithmic scale for clarity.¹⁶

16. See, e.g., *supra* note 4 and accompanying text.

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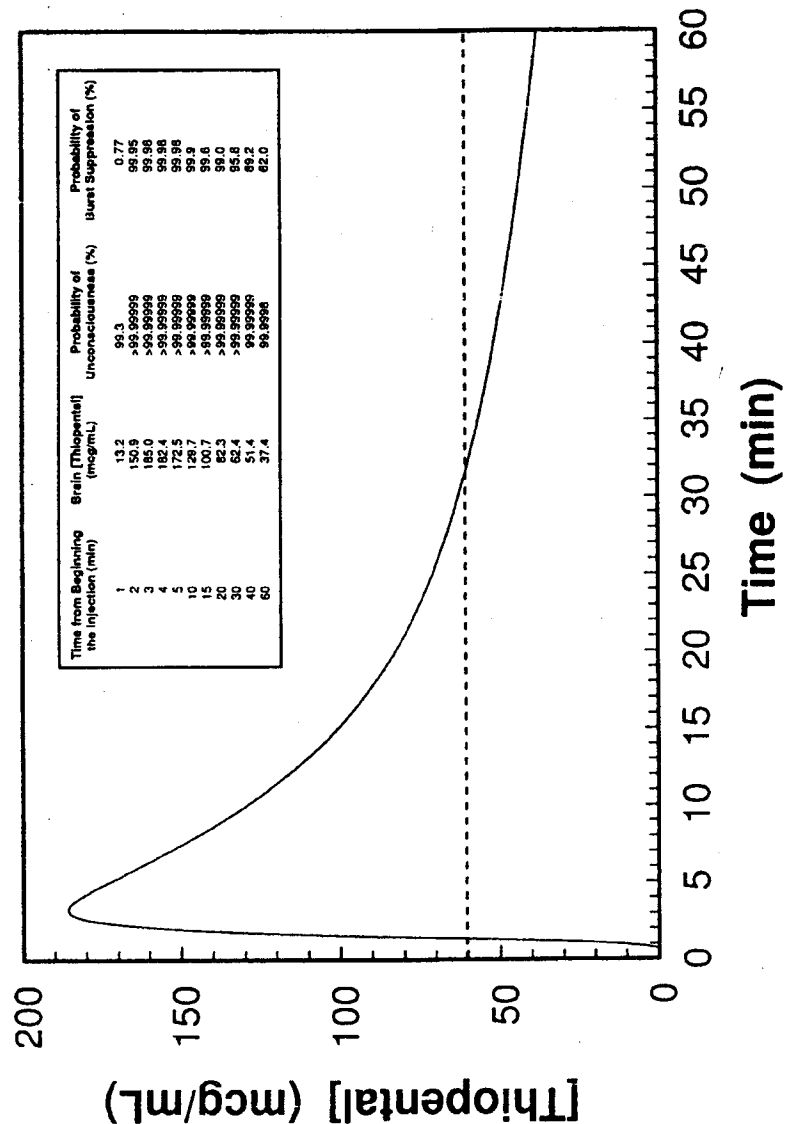


Figure 2: The predicted brain concentration of thiopental following the administration of a dose of 5000 mg given at a rate of 167 mg/sec to an average 80-kg person. The dashed line indicates the brain concentration above which 95% of persons will experience burst suppression on the EEG.¹⁷

17. See Dershwitz & Rosow, *supra* note 6, at 850.

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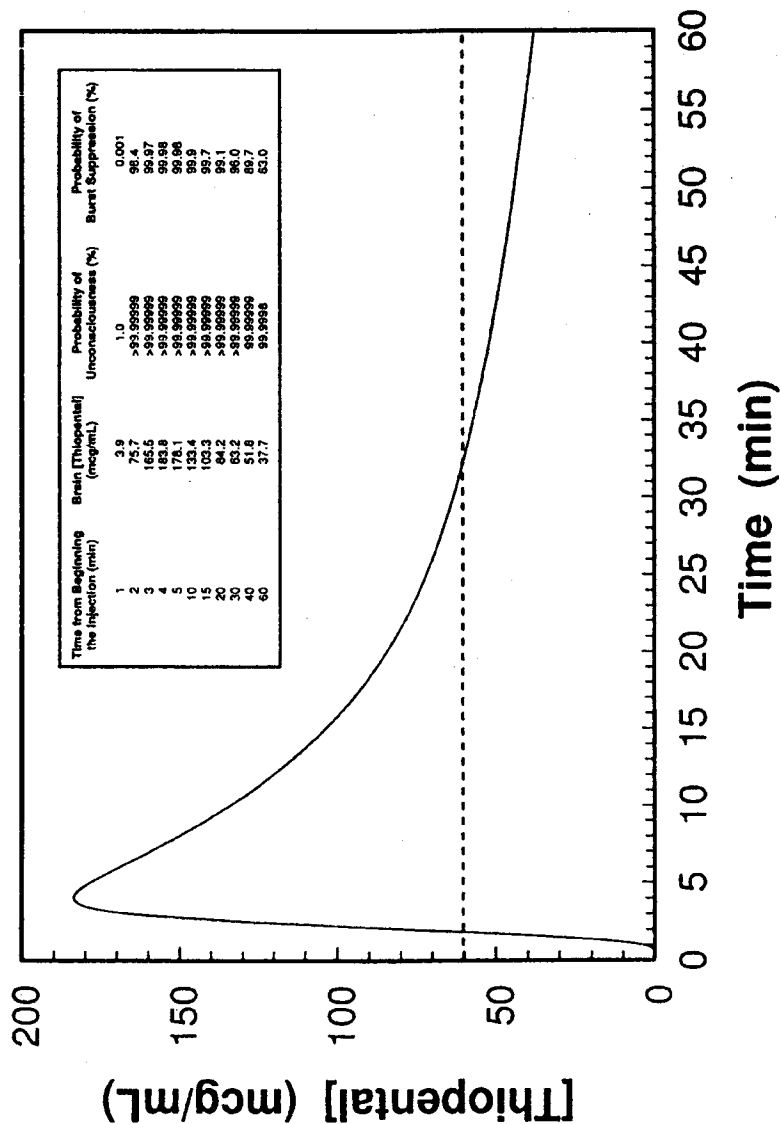


Figure 3: The predicted brain concentration of thiopental following the administration of a dose of 5000 mg given at a rate of 50 mg/sec to an average 80-kg person. The dashed line indicates the brain concentration above which 95% of persons will experience burst suppression on the EEG.¹⁸

18. The pharmacodynamic model for unconsciousness is in Telford et al., *supra* note 4, at 523-29. See Shanks et al., *supra* note 4, at 309-21 for the pharmacodynamic model for burst suppression.

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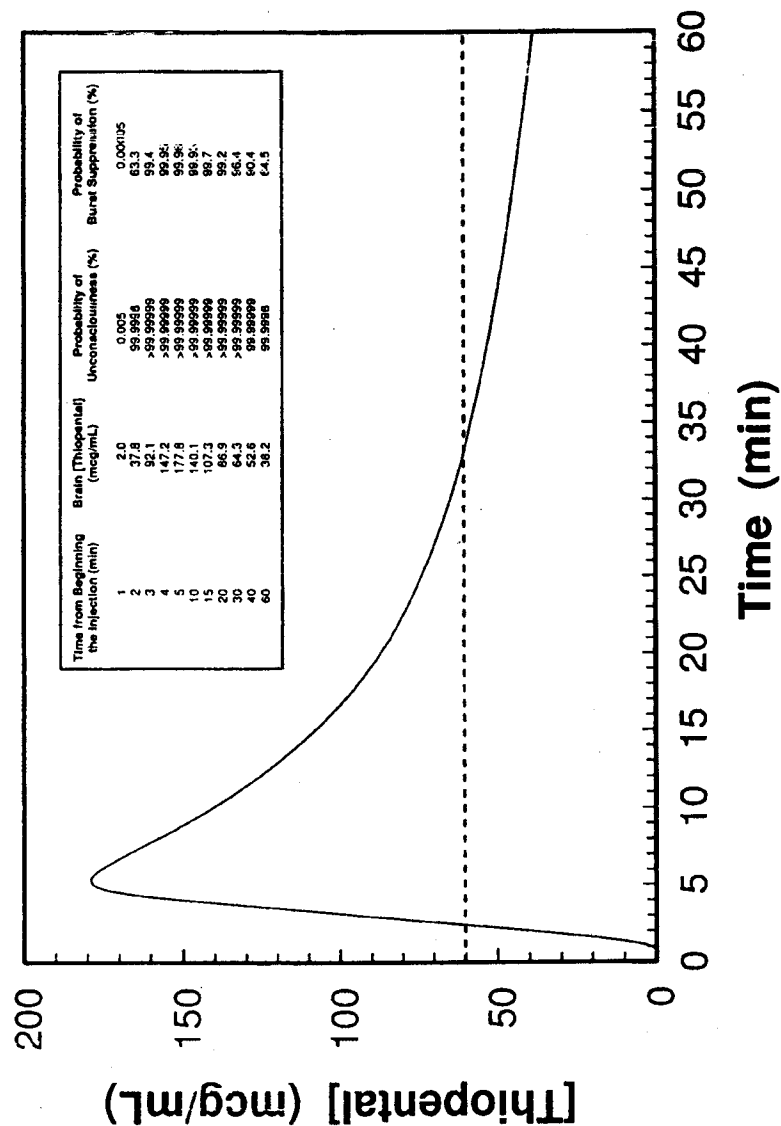


Figure 4: The predicted brain concentration of thiopental following the administration of a dose of 5000 mg given at a rate of 25 mg/sec to an average 80-kg person. The dashed line indicates the brain concentration above which 95% of persons will experience burst suppression on the EEG.¹⁹

19. The pharmacokinetic model for thiopental used in Figures 2-8 is in Shanks et al., *supra* note 4, at 309-21.

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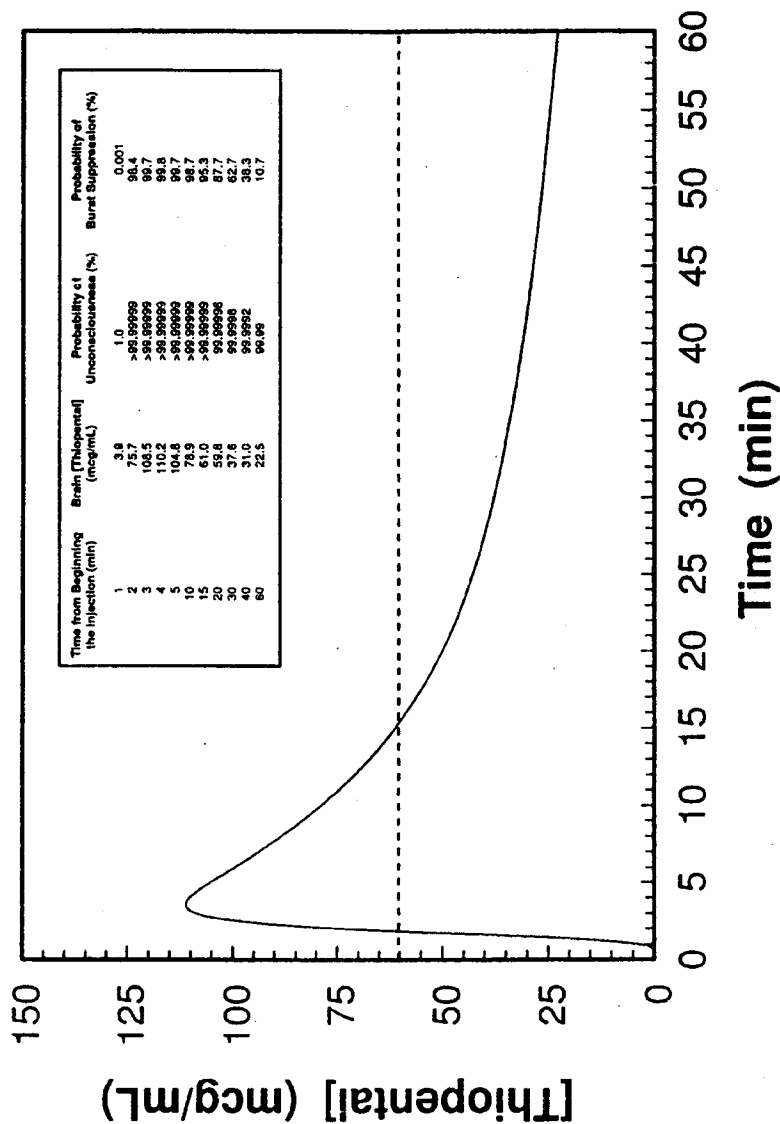


Figure 5: The predicted brain concentration of thiopental following the administration of a dose of 3000 mg given at a rate of 50 mg/sec to an average 80-kg person. The dashed line indicates the brain concentration above which 95% of persons will experience burst suppression on the EEG.²⁰

20. See *id.*

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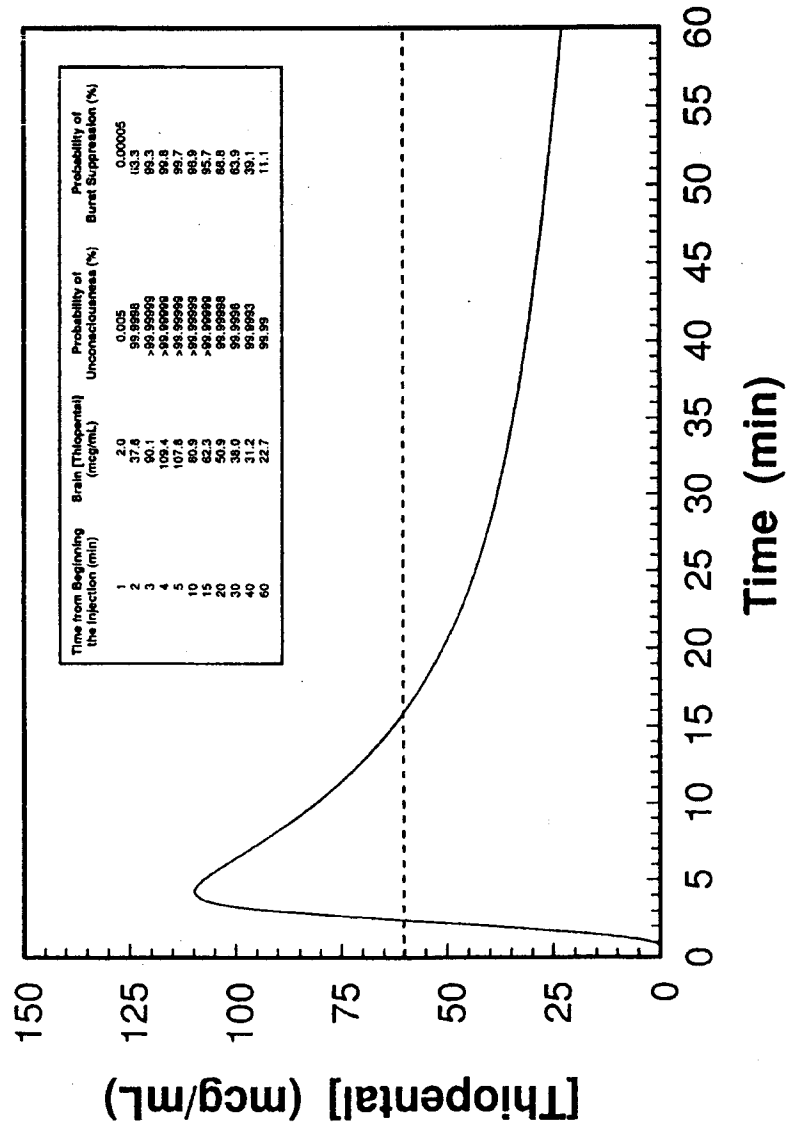


Figure 6: The predicted brain concentration of thiopental following the administration of a dose of 3000 mg given at a rate of 25 mg/sec to an average 80-kg person. The dashed line indicates the brain concentration above which 95% of persons will experience burst suppression on the EEG.²¹

21. See *id.*

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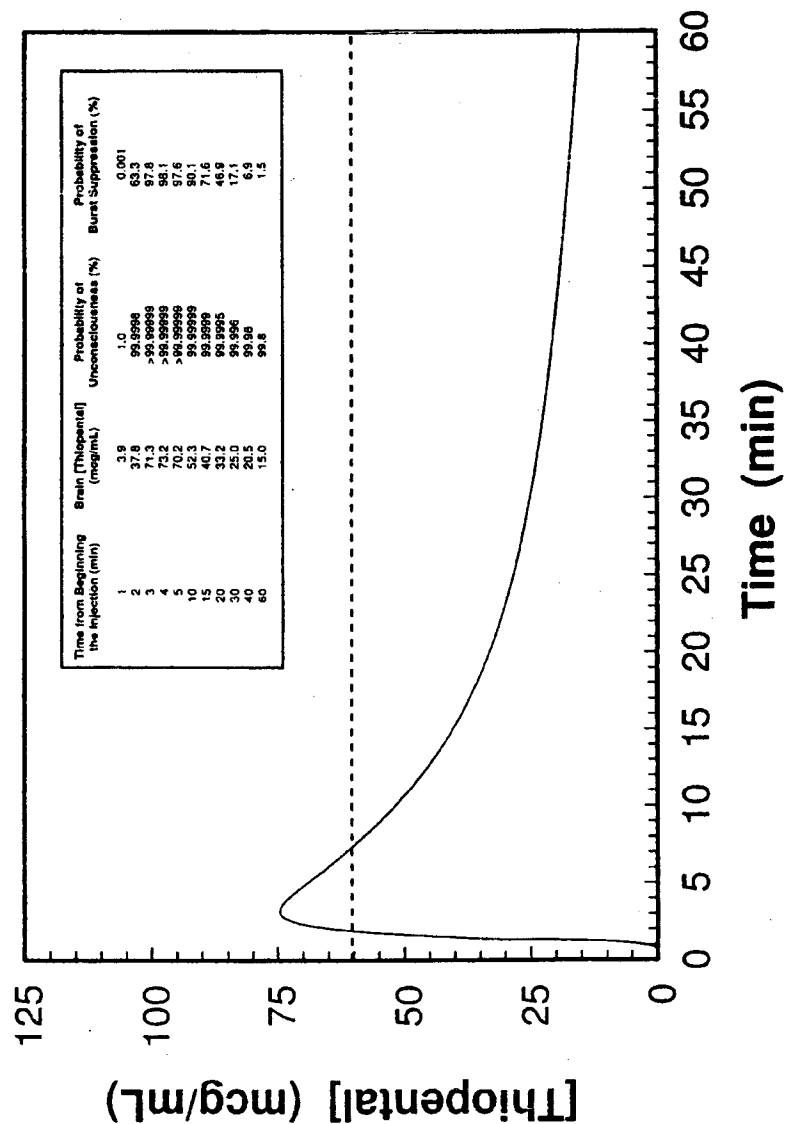


Figure 7: The predicted brain concentration of thiopental following the administration of a dose of 2000 mg given at a rate of 50 mg/sec to an average 80-kg person. The dashed line indicates the brain concentration above which 95% of persons will experience burst suppression on the EEG.²²

22. See *id.*

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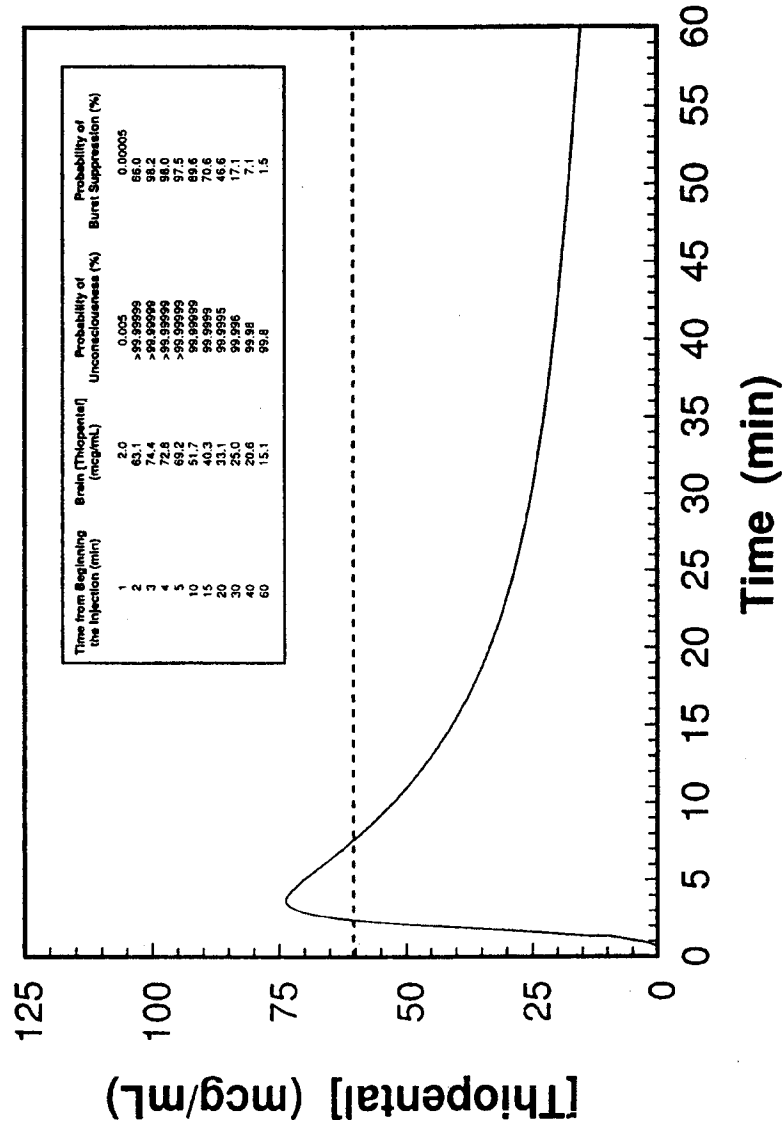


Figure 8: The predicted brain concentration of thiopental following the administration of a dose of 2000 mg given at a rate of 25 mg/sec to an average 80-kg person. The dashed line indicates the brain concentration above which 95% of persons will experience burst suppression on the EEG.²³

23. See *id.*

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Injection Rate (mg/sec)	Time to 95% probability of unconsciousness (min, normal C.O.)	Time to 95% probability of burst suppression (min, normal C.O.)	Time to 95% probability of unconsciousness (min, C.O. ↓ by 75%)	Time to 95% probability of burst suppression (min, C.O. ↓ by 75%)
25	1.6	2.6	2.3	3.1
50	1.4	2.1	2.0	2.7
167	1.1	1.5	1.8	2.2

These principles along with published data regarding the timing of drug onset can be used to construct models to simulate the onset of thiopental effect from any given dose or injection speed.²⁴ Figures 2 to 8 depict the onset of thiopental effect to the endpoints of unconsciousness and burst suppression for 2000 mg, 3000 mg, and 5000 mg doses at varying injection speeds. Since the onset of effect is rate-limited by blood circulation and diffusion, injection speed matters little. The table above shows the times required, from the beginning of the injection process, to reach a 95% probability of unconsciousness or burst suppression as a function of the injection rate for a 5000-mg dose. The standard solution of thiopental as used clinically is a 2.5% solution, or 25 mg/mL.²⁵ Therefore, injecting this solution at a rate of 1 mL/sec or 2 mL/sec yields injection rates of 25 mg/sec and 50 mg/sec, respectively. An injection rate of 167 mg/sec (6.7 mL/sec) is achieved by administering a 5000-mg dose over 30 seconds.

Since a 5000-mg dose of thiopental is expected to produce a substantial decrease in the cardiac output (C.O.),²⁶ the table also shows how the times to reach a 95% probability of unconsciousness or burst suppression are prolonged by a 75% decrease in cardiac output.

II. THE DURATION OF THIOPENTAL FOLLOWING VARIOUS DOSES

We shall now consider the *duration* of the effect of the thiopental once it has been administered. The duration of its action should exceed the amount of time required to administer the remaining

24. *See id.*

25. *See id.*

26. *See infra* notes 28-29 and accompanying text.

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medications as well as the time required for the potassium chloride to stop the inmate's heart and to cause his or her death.

The amount of time required to administer all of the medications will depend on the doses specified by the protocol as well as the speed of the injection (i.e. how rapidly the executioner injects each syringe) as well as allowing some time to change syringes by removing one from the intravenous tubing and replacing it with the next one. The following hypothetical three-drug protocol involves using doses at the high end of those used by the various states:

- thiopental, 5000 mg (25 mg/mL, 200 mL)
- saline flush, 50 mL
- pancuronium, 100 mg (1 mg/mL, 100 mL)
- saline flush, 50 mL
- potassium chloride, 240 mEq (2 mEq/mL, 120 mL)
- saline flush, 50 mL

The largest commercially-available syringes used in medicine are 60 mL. The above protocol therefore requires eleven syringes. Assuming ten seconds for each syringe change, the total time to change syringes is 100 seconds. Considering the size of the syringes used (it becomes harder to push the plunger of a syringe as its diameter increases) and the length of the intravenous tubing required to go from the "injection room" to the "death chamber," it is difficult to inject such syringes at a rate greater than 2 mL/sec (or 50 mg/sec when the standard 2.5% solution is used). On the other hand, there is no reason to inject more slowly than 1 mL/sec, so the total volume of the drugs and flushes as listed above, 570 mL, should require no more than approximately eleven minutes to inject.

The potassium chloride should cause cessation of cardiac electrical activity within two minutes of its injection (although see below for a discussion on the effects of thiopental on cardiac output). Therefore, a time period of fifteen minutes should be more than enough to complete an execution, from the beginning of the injection of the thiopental until cessation of electrical activity. Some states mandate a period of time, e.g. five minutes, of continuous electrical inactivity on the electrocardiogram ("ECG"), but that additional time does not need to be considered here.²⁷

27. North Carolina, for example, requires such a five-minute period of electrical inactivity prior to the pronouncement of death. See North Carolina Department of Correction, Execution Method, <http://www.doc.state.nc.us/dop/deathpenalty/method.htm> (last visited Apr. 15, 2008).

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Figures 2 through 4 depict the predicted concentration of thiopental in the brain following a dose of 5000 mg given at various rates of injection. Referring to Figures 2 to 4, it is apparent that fifteen minutes following the beginning of the thiopental injection, an average person will have essentially a 100% probability of being unconscious and having burst suppression on the EEG. These probabilities are not affected by the speed of the injection.

Figures 5 and 6 depict the predicted brain concentration of thiopental following a dose of 3000 mg given at a rate of 25 mg/sec (1 mL/sec) or 50 mg/sec (2 mL/sec). Fifteen minutes following the beginning of the thiopental injection, an average person will have essentially a 100% probability of being unconscious and about a 95% probability of having burst suppression on the EEG. These probabilities are not affected by the speed of the injection.

Figures 7 and 8 depict the predicted brain concentration of thiopental following a dose of 2000 mg given at a rate of 25 mg/sec (1 mL/sec) or 50 mg/sec (2 mL/sec). The 2000-mg dose of thiopental requires less time to inject than the 5000-mg dose (40 seconds vs. 100 seconds using an injection rate of 50 mg/sec). It will also have a lesser effect in decreasing cardiac output permitting the potassium chloride to circulate more quickly. With the 2000-mg dose, the time required to complete the injection and achieve cardiac arrest will be approximately 7 to 10 minutes with injection rates of 25-50 mg/sec and an additional two minutes to observe cardiac arrest on the ECG. At these time points, a person will have essentially a 100% probability of being unconscious, and a 90-95% probability of having burst suppression on the EEG.

III. OTHER EFFECTS OF THIOPENTAL

The aforementioned predictions of duration of unconsciousness are based upon the persons continuing to breathe (or have their breathing assisted as during surgery). The doses of thiopental used in lethal injection will cause most persons to stop breathing and to have their blood pressures substantially decreased.²⁸ Thus, even in the absence of the administration of pancuronium and/or potassium chloride, doses of thiopental of 2000 mg and above will be lethal in most persons due to the impairment of delivery of oxygen to critical organs such as the heart and brain. The largest dose of thiopental used in clinical medicine, about 3000 mg, is occasionally used for "brain protection" when there is the planned and deliber-

28. See generally, Dershwitz & Rosow, *supra* note 6, at 853.

ate interruption of blood flow to the brain.²⁹ Such an interruption of blood flow may occur during certain brain surgeries to repair an aneurysm or arteriovenous malformation. During such surgical procedures, patients are mechanically ventilated so that the effect of thiopental on ventilation is not relevant. However, a dose of 3000 mg of thiopental will decrease the cardiac output and the blood pressure to a dramatic, and dangerous, degree. Such patients require the aggressive administration of medications to maintain adequate blood pressure and oxygen delivery to organs. While neither of us, nor any other physician we know, has ever given a 3000-mg dose of thiopental to a patient who was not mechanically ventilated nor had his or her circulation supported, it is difficult for us to imagine that the administration of 3000 mg of thiopental to an inmate, by itself, is survivable.

We are unaware of any indication in clinical medicine in which a 5000-mg dose of thiopental is given to an 80-kg patient. The negative cardiac effects of such a huge dose of thiopental are necessarily larger than those following a 3000-mg dose. In fact, there is circumstantial evidence that a 5000-mg dose of thiopental may have caused, in some inmates, virtual cessation of the circulation. California is one of the states that uses a 5000-mg dose of thiopental as well as an ECG to monitor the electrical activity of the heart. There have been several executions in California in which a second dose of potassium chloride was given, as mandated by the protocol, because cessation of electrical activity on the ECG did not occur after the first dose.³⁰ One possible explanation is that the potassium chloride was not injected through a working intravenous catheter. Another more plausible explanation is that the potassium chloride did not circulate to the heart from the site of the intravenous injection.

IV. ASSESSING THE PRESENCE OR ABSENCE OF CONSCIOUSNESS

As previously described, all of the lethal injection protocols that we have reviewed are intended to render the inmate unconscious prior to the administration of pancuronium and potassium chloride

29. See W.A. Kofke, *Protection of the Central Nervous System in Surgical Patients*, in *ANESTHESIOLOGY*, *supra* note 3, at 1939-40.

30. For example, the execution log of Robert L. Massey, who was executed on March 27, 2001, indicates he was given a second dose of potassium chloride five minutes after the first dose failed to produce a flat ECG, and the execution log of Stephen Wayne Anderson who was executed on January 29, 2002, indicates he was given a second dose of potassium chloride four minutes after the first dose failed to produce a flat ECG.

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and to maintain unconsciousness until death occurs.³¹ The greatest risk to the inmate, in terms of the humaneness of an execution, is the administration of pancuronium and/or potassium chloride to an inmate who is conscious. Based upon the history of those executions that did not go as intended, the most frequent problem in such executions has been an intravenous catheter that was not actually within a vein.³²

If the intravenous catheter was not positioned correctly from the beginning, all of the medications will be delivered to the subcutaneous tissues and the inmate will not lose consciousness as rapidly as expected. A less plausible, but still possible, scenario is one in which the thiopental is delivered subcutaneously but then the intravenous catheter begins functioning properly and the remaining medications are delivered intravenously. In such a scenario, the inmate could be conscious and experience the paralytic effects of pancuronium and the pain associated with the injection of potassium chloride.

Such a risk could be lessened if the inmate were demonstrated to be unconscious following the administration of thiopental and before the administration of the pancuronium and potassium chloride. This sort of assessment is mandated by some protocols and makes use of either a physical examination or an EEG monitor.³³

Assessing the *depth* of anesthesia is a complex examination requiring both significant training and experience, which is obligatory in clinicians who administer anesthesia. Assessing the *presence of unconsciousness*, in contrast, is something many paramedical personnel do routinely. Such an examination typically involves the application of graded stimuli and the assessment of the response to:

- a spoken command (e.g. "open your eyes")
- a tactile reflex (e.g. gently stroking an eyelash)
- gentle shaking
- a noxious stimulus (e.g. a strong pinch)

31. See *supra* note 2 and accompanying text.

32. The executions of Joseph Clark on May 2, 2006, in Ohio and of Angel Diaz on December 13, 2006, in Florida were characterized by prolonged periods following the administration of thiopental during which the inmates did not lose consciousness as would have been expected had the medication been introduced intravenously.

33. For example, the protocols used by Missouri and the federal government include an assessment of consciousness by physical examination. The protocol used by North Carolina employs a type of EEG monitor. See, e.g., Connor v. N.C. Council of State, Nos. 07-GOV-0238, 07-GOV-0264 (N.C.O.A.H. Aug. 9, 2007) (describing North Carolina's lethal injection protocol).

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The lack of any response to these graded stimuli is strong evidence that a person is indeed unconscious.

One state, North Carolina, uses the bispectral index ("BIS") monitor in its lethal injection protocol.³⁴ This is a type of EEG monitor commonly used by anesthesiologists to assess the depth of anesthesia and decrease the incidence of intraoperative awareness.³⁵ It involves placing an electrode array on the forehead and connecting these electrodes to the monitor. Although the monitor displays much neurophysiological information, the parameter of greatest interest is the bispectral index, or BIS. This is a dimensionless number that ranges from zero to 100.³⁶ Zero corresponds to complete electrical inactivity of the EEG (i.e. "flatline") while 100 corresponds to the completely awake state.³⁷ Many clinical studies have shown that a BIS value of 40-60 is associated with a clinically appropriate depth of anesthesia and a very low probability of intraoperative awareness.³⁸

North Carolina has utilized the BIS monitor in several executions. The monitor is viewed by a nurse. The executioner pauses after the administration of thiopental (3000 mg in this state) and awaits a signal from the nurse before giving the pancuronium and potassium chloride. In each execution in which it has been used, the BIS value was 0-10 *before* the thiopental administration was complete.

V. POSTMORTEM DETERMINATION OF THIOPENTAL

Some states routinely perform autopsies on executed inmates and such autopsies may include drawing blood for the measurement of the thiopental concentration.³⁹ Unfortunately, in far too many of these autopsies the blood samples have been improperly

34. See *id.*; Brown v. Beck, 2006 U.S. Dist. LEXIS 60084, at *4 (E.D.N.C. Apr. 7, 2006).

35. See Paul S. Myles et al., *Bispectral Index Monitoring to Prevent Awareness During Anaesthesia: The B-Aware Randomised Controlled Trial*, 363 LANCET 1757, 1757 (2004); Y. Punjasawadwong et al., *Bispectral Index for Improving Anaesthetic Delivery and Postoperative Recovery*, 1 THE COCHRANE LIBRARY 1, 2 (2008) (reprinted by The Cochrane Collaboration).

36. See Lee A. Kears et al., *Bispectral Analysis of the Electroencephalogram Predicts Conscious Processing of Information During Propofol Sedation and Hypnosis*, 88 ANESTHESIOLOGY 25, 25-34 (1998).

37. *Id.*

38. See Myles et al., *supra* note 35, at 1757, 1763; Punjasawadwong et al., *supra* note 35, at 6.

39. Leonidas G. Koniaris et al., *Inadequate Anaesthesia in Lethal Injection for Execution*, 365 LANCET 1412, 1412-14 (2005).

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obtained and the results have therefore been erroneously interpreted.

Thiopental undergoes postmortem redistribution. This means that the blood concentration of thiopental continues to decrease even after the inmate's death and the cessation of circulation.⁴⁰ There is unfortunately very little information on the postmortem kinetics of thiopental because historically thiopental has been of little importance to forensic toxicologists. There are no peer-reviewed papers in the medical literature that have evaluated the postmortem redistribution of thiopental. Medical examiners in several jurisdictions have drawn paired blood samples following executions in order to assess the presence and degree of post-mortem redistribution.⁴¹ The first blood sample was obtained soon after the execution, while the second blood sample was obtained hours later at the time of autopsy. We are aware of the following sets of paired blood samples that demonstrate that postmortem redistribution of thiopental does indeed occur:

Jurisdiction	Inmate	Date	[Thiopental] mcg/ mL Obtained soon after death	[Thiopental] mcg/ mL Obtained at autopsy
CT	Ross	5/13/05	29.6	9.7
NC	McHone	11/11/05	21	1.5
NC	Syriani	11/18/05	12	4.4
NC	Boyd	12/2/05	29	11
NC	Simpson	1/20/06	42	12
MT	Dawson	8/11/06	21	3

In each case, "soon" after death means that the blood sample was drawn within an hour of completing the execution. Autopsies were performed at various times following the executions, ranging from about seven to eighteen hours.

Some persons have argued that this table represents nothing more than a group of random numbers.⁴² There are indeed *pooled* data that are purported to demonstrate no time-dependent de-

40. See A.L. Pélissier-Alicot et al., *Mechanisms Underlying Postmortem Redistribution of Drugs: A Review*, 27 J. ANAL. TOXICOL. 533, 533-44 (2003).

41. Such postmortem analyses have been performed following executions in Connecticut, Montana, and North Carolina.

42. See generally Susi Vassallo, *Thiopental In Lethal Injection*, 35 FORDHAM URB. L.J. 957 (2008); Teresa A. Zimmers & Leonidas Koniaris, *Peer-reviewed Studies Iden-*

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crease in the thiopental concentration in blood following death.⁴³ The table above is, however, the only example of *paired* data in which blood samples were drawn from the *same* inmate at *different* times following death. Applying Student's t-test for paired data to the data in the above table yields a *p* value of 0.0013. The interpretation of this statistical result is that there is a 99.9987% probability of a significant *decrease* in the blood thiopental concentration as a function of time following death by lethal injection where death closely follows a single rapid infusion of the drug and pseudoequilibrium with the majority of the body's tissues did not have time to be completed.⁴⁴ These data confirm the process of postmortem redistribution and would suggest that a rise in blood thiopental concentrations would be seen if similar paired postmortem samples were obtained when death occurred much longer after a dose of thiopental (as might occur in a clinical situation) at a time well after pseudoequilibrium between blood and tissue drug concentrations when the concentration gradient would be expected to be reversed.

In addition to the process of postmortem redistribution, another possible source of misleading postmortem thiopental data is the difference in the concentration of thiopental in arteries and veins. Pathologists most commonly draw postmortem blood samples from the femoral vein in the groin. Located immediately next to the femoral vein is the femoral artery. During life, it is usually easy to locate the femoral artery because it is typically the strongest peripheral pulse in the body. Following death, this landmark is lost. Since the femoral vein has a greater diameter, when a needle is inserted blindly in the groin, the femoral vein is more likely to be entered. However, Figure 9 shows that there may be substantial and clinically meaningful differences between the arterial and venous concentrations of thiopental. Assuming a normal cardiac output, differences between the arterial and venous concentrations of thiopental are expected for approximately four minutes following the beginning of thiopental administration. In contrast, if thiopental were to cause a large decrease in cardiac output (as is expected with the large doses used in lethal injection protocols), the differ-

tifying Problems in the Design and Implementation of Lethal Injection for Execution, 35 FORDHAM URB. L.J. 919 (2008).

43. See Koniaris et al., *supra* note 39, at 1412-14; Teresa A. Zimmers et al., *Authors' Reply, Inadequate Anaesthesia in Lethal Injection for Execution*, 366 LANCET 1073, 1074-76 (2005).

44. See Stanton Glantz, *PRIMER OF BIOSTATISTICS* 322-25 (McGraw-Hill, 6th ed. 2005).

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ence in the arterial and venous concentrations will persist until well after the expected occurrence of death.

The accurate differentiation between the femoral artery (lacking a pulse) and the femoral vein following death requires dissection and visualization of both vessels. Many medical examiners are unwilling to perform such a procedure at a prison on an inmate who has just been executed. Were a state to decide that the acquisition of a blood sample from a known blood vessel is a prudent idea, they might consider hiring a funeral director to perform the procedure. Since the process of embalming involves dissection and visualization of arteries and veins so that the embalming fluid can be injected, funeral directors should readily be able to obtain accurately femoral arterial and femoral venous blood for analysis.

We believe that there should be as much transparency as possible in the lethal injection procedure. Therefore, we support the practice of obtaining postmortem blood samples for thiopental analysis as a routine procedure. It is, however, crucial to obtain the blood sample properly and that means drawing it soon after the inmate's death, preferably within a few minutes and definitely within an hour.

VI. CONCLUSIONS

In summary, our pharmacokinetic and pharmacodynamic predictions of the effects of thiopental as used in the lethal injection protocols we have reviewed suggest that these protocols, if implemented as written, will result in the rapid death of the inmate without undue pain or suffering.

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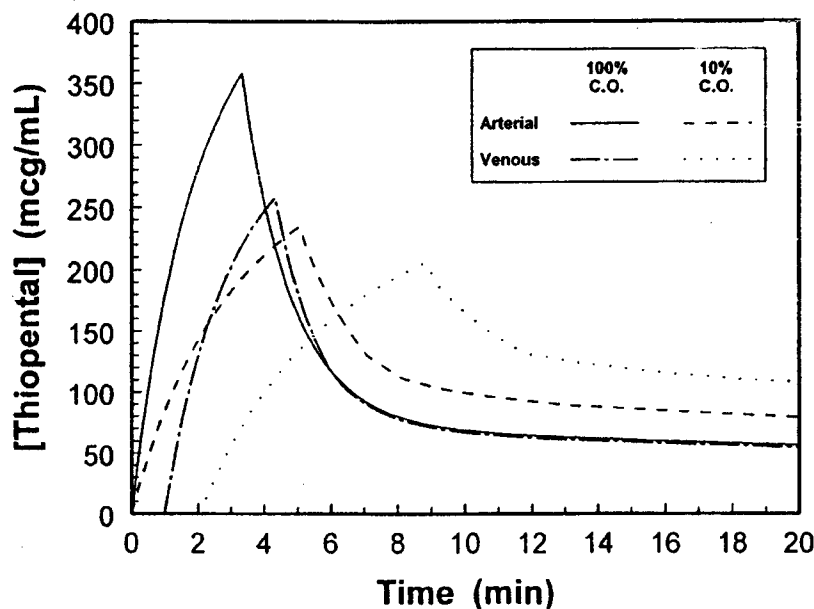


Figure 9: The effect of thiopental-induced decrease in cardiac output on the time course of the arterial and venous concentrations of thiopental. The predicted arterial blood concentration of thiopental following the administration of a dose of 5000 mg given at a rate of 1 mL/sec to an average 80-kg person is depicted by the solid line. The simultaneous venous blood concentration is depicted by (— · —). The two other lines assume a 90% decrement in cardiac output caused by thiopental. The dashed line depicts the predicted arterial concentration, while the dotted line depicts the predicted venous concentration.⁴⁵

Implementing a protocol as written means the correct doses of the correct medications are administered in the correct order into a properly functioning intravenous delivery system and allowing sufficient time for thiopental to produce its effect.

We previously discussed that the cardiovascular and respiratory effects of thiopental given by itself in doses of 2000 mg and above are likely to be lethal in virtually everyone. Much has been written and said about adopting lethal injection protocols that rely on a single drug alone such as thiopental. As clinical pharmacologists, we can describe the advantages and disadvantages in comparing the current three-drug protocol with a protocol consisting of thio-

45. The pharmacokinetic model for thiopental used in Figure 9 is in T.D. Homer & D.R. Stanski, *The Effect of Increasing Age on Thiopental Disposition and Anesthetic Requirement*, 62 *ANESTHESIOLOGY* 714, 714-24 (1985). Some of the cardiovascular modeling was performed using the program A-ware, Springer Electronic Media.

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pental as the only medication. We cannot, however, state which option is "better" because in this context "better" is based not upon pharmacological considerations but is actually a public policy decision best made by well-informed policy makers.

Some persons have contended that a large dose of thiopental given by itself does not reliably produce death.⁴⁶ In the Netherlands, where euthanasia and physician-assisted suicide are both legal, the Royal Dutch Society for the Advancement of Pharmacy wrote, "For intravenous administration, thiopental receives most consideration. It is not possible to administer so much of it that a lethal effect is guaranteed, but the substance is quite suitable for producing coma, after which termination may be effected using a muscle relaxant."⁴⁷ In the same article, the thiopental dose to be used was stated as, "intravenous administration of 1 g thiopental sodium, if necessary, 1.5-2 g of the product in case of strong tolerance to barbiturates."⁴⁸ Apparently the largest dose of thiopental used in the Netherlands was only 2 g (or 2000 mg) and it is therefore not surprising that such a dose was found to be less than 100% lethal.

The primary advantage of the three-drug protocol is that there is a definite and rapid end-point to the protocol and that is the onset of a flat-line ECG that can be assessed remotely by viewing an ECG monitor. The primary disadvantage is that there is the risk that the inmate could experience pain and suffering if the dose of thiopental is not properly administered for whatever reason and the pancuronium and potassium chloride are then administered to a conscious person. Another disadvantage to the three-drug protocol is that the potassium chloride, in addition to its action in stopping the heart, also causes widespread stimulation of nerve and muscle tissue throughout the body. Such stimulation is often manifested as involuntary muscle contractions that may have in the past been misperceived by lay witnesses as consistent with pain or suffering, or experiencing a seizure. In fact, it is most unlikely that someone given a large dose of thiopental, an excellent anticonvulsant medication, could suffer a seizure. One action of the pancuronium is to mitigate these involuntary muscle contractions.

46. Teresa A. Zimmers et al., *Lethal Injection for Execution: Chemical Asphyxiation?* 4(4) PLoS MEDICINE 646, 646-47 (2007).

47. For an English translation of the article, see *Administration and Compounding of Euthanasic Agents*, The Hague (Royal Dutch Society for the Advancement of Pharmacy 1994), available at <http://www.week.com/html/euthanasics.html>.

48. *Id.*

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The primary advantage of a protocol in which a large dose of thiopental is given by itself is that there is no risk whatsoever of the inmate experiencing pain or suffering due to the effects of pancuronium or potassium chloride. If the intravenous catheter were to malfunction and the thiopental were deposited next to, instead of inside of, the vein, the inmate might experience some pain at the injection site but in fact this is a potential risk to which any patient given thiopental for anesthesia is subjected. The primary disadvantage of this single-drug protocol is that, although the inmate will likely die within a few minutes, his death will not be immediately reflected on the ECG monitor. In fact, following a large dose of thiopental that causes the inmate to stop breathing, experience a huge drop in blood pressure, and therefore a fatal decrease in oxygen delivery to critical tissues, it might very well take a half hour or longer for the ECG to become flat. In this case, it would be imprudent to wait for the ECG to become flat, and death would need to be ascertained by a physical examination that demonstrated the absence of a heartbeat or evidence of circulation. Whether this physical examination is performed by a physician or a paraprofessional credentialed to pronounce death (such as a nurse or a paramedic), either the person would be visible to the witnesses or the curtains in the death chamber would need to be drawn for the pronouncement of death to maintain this person's anonymity. Once again, we are unable to state, based upon pharmacological principles, which of these options is "better," however, we believe that those policy makers responsible for making such decisions are entitled to accurate scientific information in order to make an informed policy decision.

EXHIBIT 5

DECLARATION OF FIONA JANE COUPER, Ph.D

I, FIONA JANE COUPER, make the following declaration:

1. I am over the age of eighteen years and am competent to testify to the matters set forth below.

2. I am employed as the Washington State Toxicologist. I have held this position since March 2008. My professional and educational qualifications are set forth in my curriculum vitae, a copy of which is provided as Attachment A to this declaration. As the Washington State Toxicologist, I oversee the Toxicology Laboratory Division, which includes a staff of 16 full time toxicologists and provides drug and alcohol testing for coroners, medical examiners, law enforcement agencies, and prosecuting attorneys. This position also involves supervision of the Washington State Patrol's Impaired Driving Section, consisting of the Breath Test Program, Drug Recognition Program and the Ignition Interlock Program. This involves overseeing the training and certification of technicians, operators and instructors, and the approval of all policies and procedures. I am also responsible for the supervision of the blood alcohol analyst program for Washington State, and I provide expert testimony on the effects of alcohol and drug intoxication, driving under the influence of alcohol and/or drugs, and blood and breath testing for alcohol and drugs.

3. I have reviewed the Department of Corrections Policy Directive 490.200, Capital Punishment, effective October 25, 2008.

4. Thiopental sodium is an ultra-short acting barbiturate typically used as an anesthetic and/or induction agent. It induces a deep, coma-like unconsciousness within 30-60 seconds, and typical anesthetic/induction doses are approximately 100-250 mg, rarely more than 1 gram. Following a 3 gram dose, respiratory functions would be significantly depressed or stopped within approximately one to two minutes. While unconscious, the subject would have no sense of physical pain or suffering.

EXHIBIT 5

5. Pancuronium bromide is a neuromuscular blocking agent (paralytic agent). It inhibits muscular-skeletal movements thereby paralyzing the diaphragm and other respiratory muscles, and stopping respiration. Typical therapeutic doses are 0.04-0.10 mg/kg. At a 100 mg dose, respiratory paralysis should occur within 30-60 seconds of administration. Additionally, the heart would stop beating within approximately one to three minutes.

6. Potassium chloride is a chemical compound that interferes with the electrical signals that stimulate the contractions of the heart. A dose of 240 mEq would be sufficient to cause death by cardiac arrest within approximately one to three minutes.

7. Based on my professional experience and review, it is my opinion that the proper administration of the three drugs listed under Section IX.A.4(d) of the policy, in the sequence and dosages specified, would be a fatal combination resulting in a swift and painless death.

8. It is my professional opinion that flushing the intravenous (IV) lines with 50 cc of normal saline solution after the administration of each of the first two drugs specified (thiopental sodium and pancuronium bromide) should prevent clogging in the IV lines.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Signed this 7th day of November, 2008, at Seattle, Washington.


FIONA JANE COUPER, Ph.D.